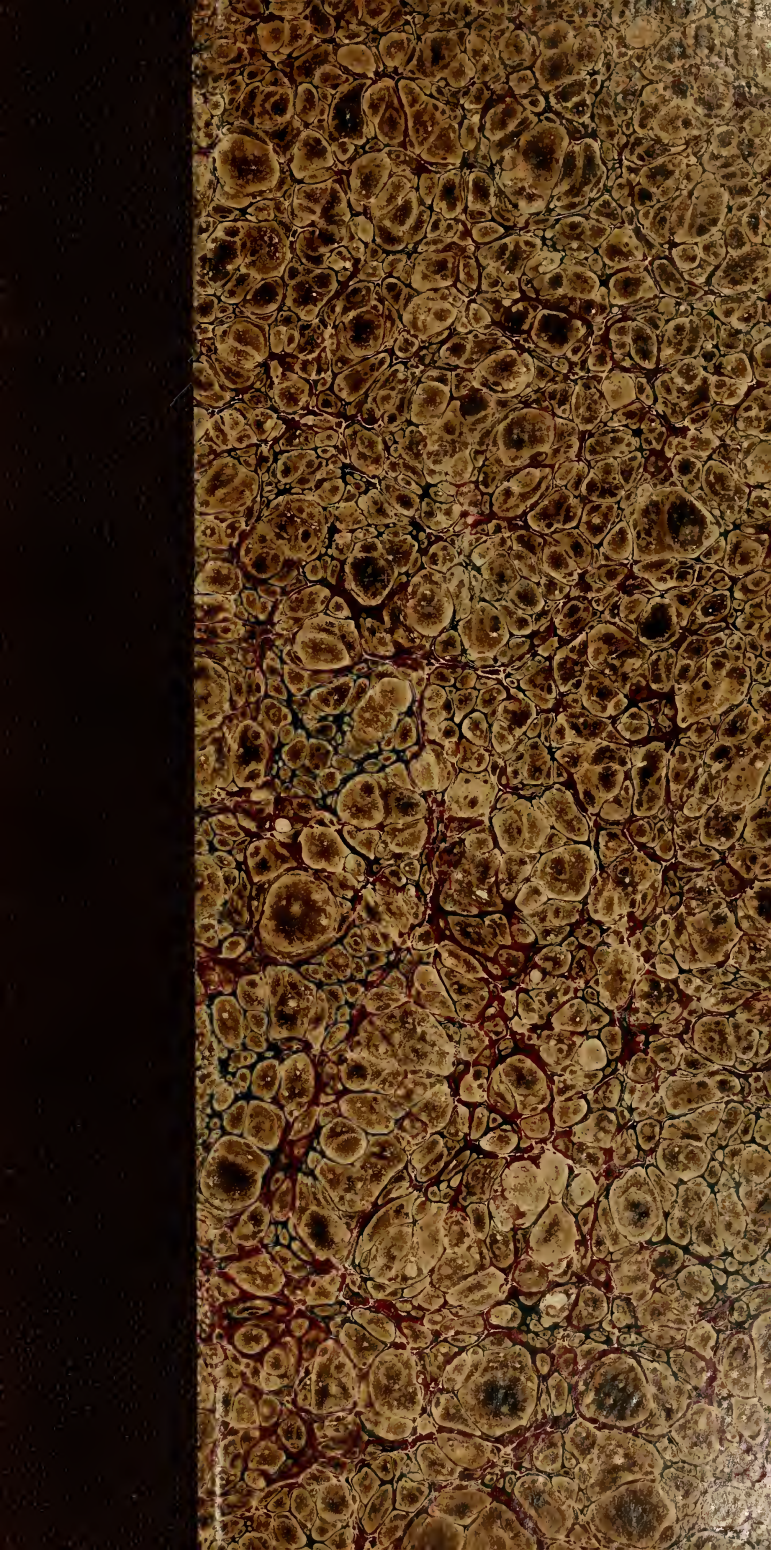




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Is Antitoxin the Best Remedy for Diphtheria?*

By J. A. REAGAN, M. D., Weaverville, N. C.

The only way to determine the relative value of a remedy is by comparing its effects with other remedies; but even this is not, in all cases, a correct standard by which to decide of its true merits.

In diseases that have different grades, as scarlet fever and diphtheria it is very unsatisfactory. Scarlet fever has been divided into three grades, scarletina simplex, scarletina anginosa, and scarletina maligna. My long experience in treating diphtheria leads me to make the same distinctions in the grades of diphtheria.

In the simple form of diphtheria the membrane begins on the anterior part of the tonsils, and extends forward covering, in some cases, to the palate and nares. There is no reason why any should die of this form, if properly treated. I kept a memorandum of fifty cases of this form, and had no deaths. The second form is the same as the first except that the glands of the neck become swollen, and there is great difficulty in deglutition. This class of cases are quite manageable. I have had, as my notes show, thirty-four cases, and had no deaths; but when we strike the malignant form we have trouble. This form usually makes its first appearance on the posterior part of the tonsils, and may be overlooked without a careful examination. The membrane extends down and up, or backward and forward; the greatest danger is in the trachea. My notes show twenty-two cases, with four deaths. Now, if we simply say such a per cent. of mortality, without classifying the cases, it gives a very imperfect knowledge of the value of any remedy. Take my one hundred and six cases, with four deaths, when in fact there were four deaths in twenty-two cases, all of the malignant type, and none in the other two classes. At a glance we see the uncertainty of estimating the value of any remedy unless the disease is properly classed in which the remedy was employed.

Since the notes given I have had two as bad cases of the malignant form as I ever saw. I determined to try Pilocarpin, or as it was more easily given to children, I used the fluid extract of Jaborandi, giving enough to keep up the secretions, believing, as it acts on the salivary glands, that it might loosen the membrane, and cause it to come away. I stayed and watched the effect, and was pleased to see the result. It all came away in forty-eight hours, and the children lived. I sustained the strength with tincture of iron and quinine, stimulated and nourished them with milk and whiskey. Since then, what few cases of the malignant form I have had, I have adopted the same treatment, and so far have not lost a case. This treatment requires close attention, and if we do not have an

*Read before the Buncombe County Medical Society, June 1st, 1896.

experienced nurse the physician's attention must be given to every case, as the secretions must be kept up regularly, and the child's strength sustained.

Now as to the Antitoxin. While I personally shall not condemn, or recommend, as I am not prepared, from the cases reported, to say what the actual per cent. of deaths have been, as it is not said, only in a few cases, that they were malignant. In England and Germany they report a great falling in the per cent. of deaths where antitoxin has been used, but do not say that the cases were malignant. Some epidemics of diphtheria, like scarlet fever, are very mild, while others are malignant—hence the uncertainty of most reports. For if it was of either simple or of the anginosa form we might expect a large reduction in death rates. Every physician who has had any considerable experience in the treatment of diphtheria must have noticed different forms of the disease.

The Board of Health of Philadelphia are so sure of the great worth of antitoxin that they propose to furnish it free, and send a physician to administer it to the poor.

Dr. George Blumer, of the Johns Hopkins Hospital, reports "eighteen cases of the anginosa form with generally successful results." He says, however, "that two of the eighteen died, and that the other cases were most of them mild, in fact none were very severe, but both on general condition and on temperature the antitoxin seemed to have a marked effect." Here the cases were mild and easily managed. We surely get nothing in favour of antitoxin here.

Dr. Babcock, President of the Tri-State Medical Society, says, speaking of antitoxin: "Welch's analysis of cases treated sets at rest all doubt concerning the great reduction in mortality accomplished by this treatment, and renders the physician culpable who refuses this remedy to patients."

Dr. Shurly is a strong advocate of antitoxin. He gives twenty-five cases—nine were mild—of the twenty-five he lost two. Taking off the nine mild cases leaves only sixteen malignant cases, and of these two died.

Dr. B. W. Hays eulogises the antitoxin—gives two cases where he succeeded, but says he also "used tincture of iron and Steven's inhalation from slacked lime. The throat was also sprayed with peroxide of hydrogen."

Dr. Lenox Brown, who is a strong advocate of antitoxin, says: "The mortality under antitoxin is eight per cent., and in cases where it was not used it was fifty per cent." But he does not say whether the disease was mild or malignant; but fifty per cent. shows, to my mind, bad treatment to say the least of it.

Dr. Gruinewald, on the other hand, says he treated twenty-five cases last winter, and used no antitoxin, and lost none; but he failed to tell the nature of his cases, whether mild or malignant.

Dr. Wesener, of the Hospital *Aix-la-Chapelle*, after treating a large number of cases, closely observed and analyzed, says: "In simple pharyngeal diphtheria serum therapy alone will do no more than a properly applied local treatment. When sepsis is present serum will be of little benefit, even less than other modes of treatment."

Drs. Katz and Baginsky say: "Their present impression is that while

antitoxin is not a cure all, it will exert the most favourable influence in the majority of cases of diphtheria."

Dr. J. J. Lawrence, of St. Louis, says: "Antitoxin advocates unanimously admit that the so-called specific is of no benefit in septic diphtheria. Then of what use is it? The ordinary type will recover upon almost any treatment." Again he says: "Antitoxin is a mitigated fraud, take out the antiseptics with which it is combined, and we shall soon see where any virtue it may appear to possess resides."

Dr. T. J. Smith says: "The idea of an old broken down horse that has been poisoned for a period of six months producing a remedy that will cure, or even palliate, diphtheria is simply too absurd for rational men to consider."

Dr. Thomas H. Manley says: "Antitoxin came under my knowledge when one physician persuaded another physician to let him inject in the arm of his healthy boy, as a prophylactic dose, as the boy had some fever, and in forty-eight hours the boy was dead."

Dr. C. C. Gratiot says: "The report of a death of a child from a prophylactic dose of antitoxin, makes me desirous to put on record a similar case. I gave Mrs. Snyder a dose. A few moments after the injection she complained of feeling faint, her pulse ran up to one hundred, almost imperceptible at the wrist. She became very pale, feet and hands cold, respiration hurried and shallow, pupils dilated, face covered with cold perspiration." It was with great difficulty she was saved.

Dr. Halderman reports a death from antitoxin. "The child had a mild case of diphtheria. He gave an injection of antitoxin, and in five minutes the boy, five years old, was dead."

After examining the reports of different hospitals, and what has been said by physicians from all parts of the country, I am not satisfied that antitoxin is a panacea for diphtheria. As a rule the advocates of antitoxin have not told us whether the diphtheria, reported cured by antitoxin was simple, anginosa, or malignant. I have noticed, with regret, the disposition of some physicians to run after new and untried remedies to the neglect of those that have proved useful and innocent. See how many ran after Brown-Sequard's Elixir of Life, to the great detriment of pigs and lambs; but where is it now? How about Manley's Gass Cure of Consumption? For what do they use their gass generators now? How about Condurago as a specific for the Cure of Cancer? Who uses it for that purpose now? Dr. Jud once said he knew of no specific in medicine unless it was sulphur in itch.

Antitoxin, when fresh, may do good in some form of diphtheria, but I fear, as it gets old, it may change some of its chemical properties, and lose its beneficial effect, or even become dangerous. At the late meeting of the American Medical Association in Atlanta, in the Section of Practice of Medicine, there was a discussion on the treatment of Typhoid Fever, when one physician asserted that he had cured a number of cases by Dr. Woodbridge's method in from seven to nine days, while it was doubted by many others. I listened to the discussion, which lasted for some hours, and came to the deliberate conclusion that I had never met with a well marked case of typhoid fever that was so easy to yield to treatment. Now if we have a typhoid fever cured in seven day, why not have diphtheria cured by antitoxin in twenty four hours? But honestly, I prefer

simple remedies in mild cases, and in malignant cases give me Jaborandi, iron and quinine, milk and whiskey, and until I fail I will let the advocates of antitoxin enjoy the laurels of success.

Once to every true physician comes the moment to decide,
In the strife of truth and falsehood for the good or evil side,
Some new wonderful invention offers each the bloom or blight,
Parts the bad upon wrong side, and the wise upon the right,
And the choice goes by forever 'twixt the darkness and the light.

The Treatment of Psoriasis.

By J. C. MONTGOMERY, M. D., Charlotte, N. C.

In recommending any remedial agent in the treatment of Psoriasis at the present time, one must do so with great reserve, and he should be fortified with such facts as will bear out his assertions. There is, probably, no disease in which so many medicines have been recommended that have flourished and died. One by one each remedy has fallen by the wayside for newer ones to take their places. In many cases, however, the physician, the pharmacist, or the patient is more to blame that a remedy fails than the remedy itself is of no value.

The successful treatment of Psoriasis is one of the most difficult, tedious and less satisfactory tasks that a physician is called upon to manage. It is astonishing to think of how few specifics we can boast of possessing.

If the question was asked a medical student to name the specifics in medicine he would say mercury will cure syphilis, quinine will cure ague and arsenic will cure Psoriasis. Every one is saturated with the belief that arsenic will cure Psoriasis, but when we come face to face with this malady we often find that this remedy fails most dismally to fulfill our high anticipations. It would be impossible, and it certainly would be wearisome, if any attempt were made to embrace in these few remarks the experience of other drugs in the treatment of Psoriasis. Suffice it to say, that cantharides, aconite, turpentine, green iodide of mercury, cod liver oil, phosphorus, and sulphur have been put into the balance and found wanting as specifics in Psoriasis.

If we wish to ascertain accurately the influence of any treatment we must first obtain the natural history of the disease which we are dealing with. The practical question is, can we not subject our Psoriasis patients to any treatment with the confident hope that we shall either cure or benefit them? It would be of too deep interest if the opinion and experience of a number of those engaged in skin practice would give an answer to this question; for my own part, I direct my endeavors to—(a) improve the general health of the patient, if any error of nutrition or function could be detected; and (b) treat the disease locally. Nothing but experience, and what may be called the instinct of the physician, will enable any one to use the first factor.

There are so few drugs or other medicaments which, when administered internally, have any striking influence on diseases of the skin apart from syphilides, that any addition to their number will, I am confident, be welcomed by the profession, especially by those who have not had the opportunity of availing themselves of the improvements in local treatment of modern dermatology. The undoubted success in many respects of

this treatment which dermatology, like surgery, owes, in great measure, to antisepticism has had a tendency, coupled with the great authority of Hebra and the German school, to make us concentrate our efforts on directly affecting the cutaneous envelope, and to think comparatively little of what can be done by acting upon its contents. To those who have gone somewhat too far in this direction the discovery of the influence of thyroid extract on diseases of the skin must have been a rude awakening, and although, as usually happens, the limits of its efficacy are somewhat narrower than was at first hoped and believed, yet it was a startling reminder that the old humoral pathology, though buried, is perhaps not yet dead, and that a germ of truth still survives to bring forth a healthier and stronger plant than the original one.

It may be true that arsenic does not always act as a specific in Psoriasis, however it finds its place in the treatment of this disease when it covers a large part of the skin surface. Rhus-toxicodendron is also very highly recommended in this disease, given in 5 or 10 drops of a saturated solution three times a day. Salicin and salicylates, drugs which have won an established reputation in other diseases are now used quite extensively in the treatment of Psoriasis. I first noticed the beneficial effects of these drugs by giving them to a patient suffering with Rheumatism, who also had Psoriasis. Not only was the Rheumatism relieved, but the Psoriasis also was greatly benefitted, and with a little local treatment was entirely cured.

The local treatment of this disease, however, is by far of the greatest importance. The first step in the treatment of Psoriasis is to remove the scales; for this purpose any indifferent oil or fat will answer. The patient is then given a hot bath and the patches rubbed with a stiff brush and plenty of soap; the various medicaments are then applied to the bleeding surfaces. Among the many remedies said to be good in this disease an ointment of pyrogallic acid is one of the most effective remedies we have at our command. Its strength should never exceed 10 per cent. The urine of patients treated with pyrogallic acid should be watched daily, and when it becomes dark in color the remedy should be withdrawn. In some patients the use of a tar preparation acts very nicely, though it often produces a febrile condition, the skin becoming irritated and looks as though a dermatitis would supervene. The best method of using tar is to make a fifteen per cent. solution in collodion. The odor of tar is greatly reduced in the collodion.

The few remedies I have recommended often act efficaciously, but to remove the scales, and very frequently to prevent their recurrence, there is nothing, as a local application, which succeeds so well as a consecutive, efficient and constant application of Unguentine. The remedy must be rubbed in until the patient can submit no longer, and if the patches are local and large a piece of lint should be saturated and tied on for several consecutive hours, even days if necessary. In universal Psoriasis only a limited surface should be treated at one time, the other parts being covered with an indifferent ointment. The treatment must be persevered with until the whole of the morbid material is cast off. When the patient has carried out this treatment for three or four weeks, the result will very likely be satisfactory.

Oil of sassafras will destroy pediculi and their ova.

Pure Milk Supply and the Method of Obtaining It.*

By F. C. GILLEN, M. D., Milwaukee, Wisconsin.

Cow's milk forms a great proportion of the food of all civilized races. It is a food that is peculiarly liable to changes from fermentation and putrefactive agents being a most excellent culture medium for the growth of the germs. The age at which it is most used is the time in which the body is very susceptible to poisons of all kinds. It is, therefore, of the highest importance that this food supply should be pure, of good quality, and free from injurious constituents.

There are two forms of trouble arising from impure milk, the first, in which the milk is the medium for conveying infectious diseases; the second, in which it contains poisonous compounds due to fermentive or putrefactive changes.

Those infectious diseases which have been transmitted from milk are tuberculosis, typhoid fever, diphtheria, scarlatina and Asiatic cholera.

Tuberculosis is a disease that affects cows and other animals as well as the human race. In the bovine family it is frequently a local disease, and very often affects the udder, giving rise to tubercular abscesses. These break down and the bacilli gain access to the milk. Children drinking this milk, if they are susceptible, acquire an abdominal form of tuberculosis known under various names, such as *tabes mesenterica*, *marasmus*, etc. They can, of course, and frequently do acquire general tuberculosis or consumption.

Typhoid fever germs are introduced into the milk in the water with which the milking utensils, cans, etc., are washed, or the water which dishonest dealers add to the milk. Many epidemics have been traced to this source.

Diphtheria may be introduced from the atmosphere of foul or ill-kept stables, or from infected districts, milk forming a very good medium for the growth of the germ. The diphtheria germ is very rapid in its growth and very difficult to kill.

Asiatic cholera is a disease which is not very frequent in this country, but in those countries in which it is prevalent the disease has been carried by the milk. There is authentic proof that the above mentioned diseases have been carried in the milk, because the germs are known and easily recognized.

In the case of scarlatina; however, the microbic cause has not yet been discovered, therefore we cannot be absolutely certain that it has been carried by milk, but there is much evidence to show that such is the case.

The second great cause and trouble, and to my mind by far the most serious, because of its frequency and the rapidity with which it acts, is that in which the common germs of putrefaction so change some of the constituents of the milk that they are actual poisons. These poisons are known to scientists as *ptomaines*, *toxalbumines*, *toxines*, etc. They are present in greater or less quantities in all albuminoid substances at certain

*Read before the Wisconsin Medical Society, June 5th, 1896.

times during putrefaction. Dr. Vaughan, of the University of Michigan, has isolated one from spoiled milk, which he calls tyrotoxican.

These substances are very powerful poisons, acting like many of our vegetable alkaloids, it is estimated that one, cadaverine, is so powerful that one sixteenth of a grain would kill a full sized man, being about five times as powerful as strychnine. The symptoms which they produce are like those of Cholera Infantum and its kindred diseases; therefore it is supposed that they are the cause of such diseases in bottle-fed children.

These diseases form a large proportion of the death rate during the summer months in all our large cities. The usual city milk comes in from the surrounding country. The time elapsing between milking and the delivery of the milk varies, often being from ten to sixteen hours. Then too, many of the stables are dirty, and germs always accompany dirt. No attempt is made to clean the cow's udder, or the hands that milk, or only such attempts as render the matter worse. Often, too, the milk is kept in such a place as would best favor the development of bacteria. The attempt to render such milk wholesome by Pasteurization, after ten or sixteen hours, is not very successful, for the damage has already been done, the trouble being, not the germs themselves, because they are not so very noxious, but the products which they produce by their growth in the milk. These products are formed much the same as alcohol is formed from the grape sugar by yeast fermentation.

The dilution of milk by water is not so serious in its results as dirty milk, but nevertheless it is fraudulent, and should be stopped.

Cow's milk contains 4 principal ingredients: fats, sugar, caisien, and water, in about the following proportions: fat 3 to 5 per cent., sugar 4 to 5½ per cent., caisien 3 to 4 per cent., water 84 to 87 per cent. The specific gravity is from 1028 to 1032, these data form the method for determining the presence of dilution by water.

So much for the trouble which arises from the impure milk supply.

Now, as to the method of obtaining the pure milk supply. In the first place the cattle should be healthy and the surrounding conditions conducive to their health. All animals suffering from tuberculosis or any other disease, should be separated from the herd. The food should be good, so as to bring the milk up to a good standard. The stables should be cleaned and kept clean. The udders of the cows and the hands of the milker should be thoroughly washed before each milking. The milk, after being drawn, should be cooled rapidly until about 40 or 45 degrees Far. At this temperature no germs will develop. If it is to be Pasteurized it should be done within three or four hours after milking.

It would be better if all city milk used by children under one year of age should be Pasteurized. A good method of Pasteurization is as follows: The milk should be put in cans containing about one gallon, with an opening in the top so that the milk can be kept constantly stirred. These cans should then be placed in water, and the water heated. The temperature of the milk should be raised to 155 or 165 degrees F., and kept at such temperature from one to one and a half hours. It should then be put in sterilized bottles, and the bottles carefully sealed.

Pasteurization will destroy nearly all bacteria, but not their spores or

seeds. If the milk is to be kept some time it should be both Pasteurized and sterilized.

The milk can be sterilized at a higher temperature, about 212 F., which will destroy both germs and spores, but such heat imparts a flavor to the milk that is not pleasant, and renders it less easily digestible.

At the temperature recommended for Pasteurization the boiled flavor does not remain after the milk is cooled.

It is not my intention to state that all the ptomaines, etc., before mentioned give the same symptoms. On the contrary they provide many varieties of symptoms. Some, acting on the nervous centers, give rise to convulsions, others give rise to diarrhoea and vomiting, while others acting more slowly, probably as irritants, give rise to symptoms of gastrointestinal inflammation.

That I may not be reckoned as an alarmist I will give a few statistics concerning the death rate from these diseases in some of our larger cities.

In Milwaukee during the year ending December 31st, 1894, there were 283 deaths from such diseases in children under one year of age, against 1441 deaths from all causes in children of the same age.

In Chicago, for the same period, these diseases caused 2779 deaths out of a total of 7336 in children of that age.

In New York city for the year ending December 31st, 1890, 2443 of the deaths out of 10,288 deaths in children under one year of age were caused by these diseases.

It is probable I have offered nothing new in this paper, but if I have brought a little more fully before the public the reasons why bottle-feeding is so dangerous to children, and the means of, in a measure, avoiding those dangers, my object is found.

A Plea for Legislation for the Protection of our Profession.¹

By F. W. ADAMSON, M. D., Milwaukee, Wisconsin.

As we look back over the short history of this our country, our land of liberty, we see wonderful strides forward in almost every line of business and industry. If our ancestors of the Revolutionary War were told of the possibilities of the 19th Century in uses of electricity they would have said it was impossible. In a few years the changes in locomotion alone has been simply phenomenal. So it has been in all branches of trades, industries, business, education, etc., etc.

Going far back in the geological ages we are told by those who know that of our United States, Wisconsin was the first to rise above the flood of the ancient ocean that spread over our present America. Wisconsin was first, her motto is forward, and in many ways she has forged ahead, even of her sister States, but in some respects she has lessons to learn of her sisters that it would be well for her to profit by. One of these respects is one I wish to call your attention to for a few moments, namely, the improvement that can be made over the existing protective medical laws of our fair State.

Those now on her law books are *meagre* and *inadequate*, that make

¹Read before the Wisconsin State Medical Society, June 5th, 1896.

me blush to read, and of which we should be heartily ashamed. They can hardly be entitled to the name of laws.

The laws of many of the Eastern and some of our Western States are far in advance of our present existing ones. The consequence is many things are done in our State which ought not to be, and conditions are existing that ought not to exist.

Pardon me if I call your attention to some of these conditions in a somewhat disjointed and wandering way.

Let me ask you what right the druggist has when a person comes into his store and states to him complaints that the person has, or possibly of a suffering one at home. The druggist thinks of some prescription he has put up that he thinks will hit the case in hand, and instead of sending the case to the physician he puts up a bottle of medicine. Or if one comes in with a skin eruption he puts up something and lets him go. If after two or three weeks the patient gets worse than better, he gets scared and sends him to the physician—more often the case gets well and the physician loses his rightful case.

One case came under my notice of a boy who had been given pills for constipation for over a week with no effect, and the boy getting weaker all the time. Then he was sent to a physician after he was choked up nearly to his throat, and it was only after a hard fight he was brought around again. So much for counter-prescribing of which he has no right to do.

Again, what do you think of a druggist actually going out to visit the sick at their homes, then going back to his store and putting up medicine for them.

Again, of a druggist to whom the physician has sent a prescription of which he is very particular should be compounded exactly as he has designated, instead, the druggist not having some of the ingredients, substitutes something else the physician does not want at all, or questioning the patient as to what is the matter on his own responsibility, doctors the prescription by adding something else, or leaving out some one of the ingredients, etc., etc., as we all can recall many such cases that have from time to time come to our notice.

Again, a man comes into the store with a cut head, hand or finger, etc. The druggist takes upon himself the office of surgeon, and takes the man back of the counter and dresses the wound and pockets a fee. If the case goes wrong and he gets scared he sends him to the doctor.

The right to prescribe, to attend the sick, to attend accident cases, etc., etc., should by law be allowed only to those PHYSICIANS and SURGEONS WHO HOLD A DIPLOMA OF A RECOGNIZED MEDICAL COLLEGE, POSSESSING THE RIGHT TO GRANT DIPLOMAS. We know there are some, even many, who are in the State to-day calling themselves doctors who are practicing without a diploma. Is it right that we should be required to go through three and four years of hard work and study to obtain our diploma before we can have the right to practice and then go into competition with men who either have had no medical training, or who have only attended one or two years at college and have not obtained a diploma. I say again, is it right? Or to be deprived of our legitimate work by counter-prescribing druggists. Is it right I say? Is the State protecting the health and welfare of its people to allow such things to go on without a word. Another thing the druggist does is to repeatedly refill a prescription when the pre-

scription explicitly states "*not to be refilled*;" he sees an extra fee may be lost by sending him to the doctor for another prescription.

Again, the laws of our Eastern States are being made so rigid that those who can not continue in practice there are coming west where there are no laws or lax laws. As a result WISCONSIN is becoming the DUMPING GROUND for Eastern DIPLOMALESS DOCTORS, QUACKS, and all kinds of MEDICAL INSTITUTIONS and NEWSPAPER ADVERTISERS.

Next, let us consider the question of Midwives. They undertake to preside at that event in a woman's life when her life is always put in danger, where strict antiseptic measures, and the greatest care, etc., as we all well know are required. How is this woman qualified to undertake this great responsibility. Many of them are extremely ignorant and don't know the first thing about surgical cleanliness, would laugh at you if you broached the subject to her; has seen several accouchements, or had several herself, and then considers herself qualified to hang out a shingle and go into competition with the professional man who has gone through a long course of study and training. They have no trouble if the case terminates favorably, but if it don't and they get into trouble the doctor is called and they fall back on him, and often when it is too late to do any good. They will make examinations repeatedly and never think of washing their hands or cleaning their nails.

Two cases of septicemia occurred in Milwaukee about a year ago within a week of each other. These were attended by the same midwife. She attended one, infected her, she sickened and died. While with this one she called to see the other one, examined her, infected her, and shortly after the child was born the fever set in and shortly she died, infected direct from the first one who had been previously infected by the midwife in charge. These were both extremely severe cases of septic infection, but this woman tried all the time to throw it off by declaring it was nothing more than *colic*. Colic, gentlemen, colic.

Within a month a young woman, a mother for the first time, died from infection given her by the woman in attendance. Another case, the woman cared for the child, left it and was to return next A. M. During the night the child had an umbilical hemorrhage and died. The parents not knowing the trouble the woman was sent for but kept out of the way. Such women take charge of cases that rightfully belong to the physician who has prepared himself to care for these cases.

Here are a few statistics culled from those for 1895 from the Milwaukee Health Department. The total number of births for the year ending 1895 was 7,813, of these 4,134 were males and 3,679 were females. Out of these 7,813 births only 1,246 cases were attended by physicians, the other 6,567 being cared for by midwives.

I have spoken of only a few cases, but in this limited time it is sufficient to show the need of the physicians of the State to rouse themselves and make some strong move in the direction of improving our State laws governing the practice of medicine. I am well aware that every legislative year a medical bill is brought before the legislative body in these halls, but it is as promptly killed through, the influence of lobbyists who have plenty of money to burn the pockets of the legislators and committee men—consequently the death of the bill.

The rising generation are becoming disgusted with the way politics and law making, etc., is run, and before they can vote are so disgusted

that many don't vote at all—don't take any interest—and many only take the time to go to the poles and cast their vote. It is a pretty example set by the fathers for the sons to follow. The consequence is the government of our land is fast passing into the hands of a ring of office seekers for the boodle that is in it. It is too bad if the legislature can not meet, consider bills for the good of the people and not for the good of their own pockets.

Referring to the lobbyists killing the bills *they are men backed by those who if such laws as are needed were passed would be killed deader than a door nail as far as carrying on their practice is concerned and they know it.*

In the address of the President, Dr. Cole of San Francisco, of the American Medical Association held this past month, amongst other great questions spoke of this question as one of great importance and one of which he thought the association should take cognisance and suggest a remedy, was the total absence of reciprocity between the United States and foreign countries as the laws governing the right to practice medicine, who Americans should be required, when taking up their abode in Germany, Great Britain or even the territory of our first cousin Canada, to undergo an examination before they could secure a license, while our portals were flood gates through which every country on earth poured its surplus of medical men, or rather, to put it more correctly, why our country should receive with open arms without hinderance, the excess of the products of foreign schools without requiring of them the same as was required of us, he could see no reason, and he was distinctly of opinion that the time had arrived when it should be attended to and something done to arrest the strides of this rapidly growing wrong. Here he refers to the relation of the United States to foreign countries but our attention is equally directed to our own state. Something has to be done and must be done in the near future. As to the means of arriving at what we want and as to what should be incorporated in present needed laws I will not here discuss, but leave to older and wiser heads than mine. I would say that the existing medical laws of our strongest states and of foreign countries should be thoroughly and systematically studied and compared by our best men and then a code of laws be compiled and submitted to the coming legislature and backed by the medical fraternity of the state.

Observations on Surgical Shock.

By W. N. MACARTNEY, M. D., Fort Covington, N. Y.

Typical surgical shock is not difficult of recognition, nevertheless there are certain forms of it which differ so widely from the classical shock of the text books that a word of earnest warning may not come amiss. According to most authorities the surface is cold, the pulse rapid, small and feeble, the face is pinched and haggard, and the temperature falls markedly, the condition being attributed to profound depression of the nervous system with vaso motor paralysis.

I would willingly admit this to be a fairly accurate description, briefly given, of the average case of profound shock, yet I have frequently seen cases which did not present these characteristics, and in which failure to

recognize the danger sufficiently early was followed by disastrous consequences. Medicine is not an exact science, there are infinite variations, the number of things which we know "that aren't so," is not insignificant, and to teach, as our text books do, that the pulse is always feeble and rapid, that the temperature is subnormal, and that this condition is due to vaso-motor paralysis—to teach this doctrine without qualification or emendation is an error and a dangerous one. All cases of shock do not conform to this rule.

Laboratory experiments show that certain injuries, such as a sharp blow on the abdominal viscera, crushing the foot, etc., are capable of inhibiting cardiac action. Sometimes as when the intestine is bruised the heart stops in diastole, other injuries may produce cardiac spasm, and the heart is found on examination contracted and empty. Cardiac paralysis or cardiac spasm may be the result of surgical injuries and surgical shock may be of more than one type. The innervation of the heart, the vaso-motor mechanism, afford complex problems not yet fully worked out, and the study of reflex action is still in its infancy.

In the human subject after crushing injuries of the limbs I have occasionally seen the pulse very slow and strong, but with a peculiar characteristic which should indicate to the careful observer that shock was present. It is a pulse difficult to describe, but which points unmistakably to a tendency to cardiac spasm. There is a prolongation of the systole, which encroaches upon and interferes with the diastole; cardiac spasm diminishing cardiac relaxation. This increase in the length of the systole once recognized in the pulse is not easily forgotten.

This slow pulse indicates grave shock impending, and where I have observed it, when, in spite of protests, operation was done at once on the theory that with such a pulse no shock could be present, profound and sometimes fatal shock followed. It is a warning not to be lightly disregarded. In these cases do we have vaso-motor paralysis or does vaso-motor spasm precede the paralysis? The term vaso-motor paralysis, however, is so ambiguous that some uncertainty exists as to the exact meaning. There are vaso-constrictor and vaso-dilator fibres, and the term vaso-motor paralysis might be construed to mean either or both.

Goltz has shown that in some cases of shock the intra-abdominal veins are distended with blood, and this condition I have frequently found on autopsy in those who had died of surgical shock. Michael Foster says "When in the frog the brain and spinal cord are destroyed, very little blood comes back to the heart as compared with the normal supply, and the heart, in consequence, appears almost bloodless and beats feebly. This has been interpreted as indicating a normal tone in the veins dependent on the central nervous system. When the latter is destroyed the veins become abnormally distended."

Does this furnish our key to the mystery? This much is beyond dispute, that in certain forms of shock there is a marked congestion of the internal organs while the superficial vessels are contracted and empty, and this condition is present in ordinary shock also to some degree, for the blood certainly leaves the surface, and with equal certainty it must go elsewhere. The exact pathology of surgical shock is unknown. There is probably vaso motor spasm associated with the paralysis, and if the term vaso-motor paralysis can be so stretched as to include vaso-motor spasm the explanation ordinarily given will explain—not otherwise.

Again, certain forms of shock are accompanied with high temperature—a temperature not due to fat embolism, or to septic infection, but to shock *per se*. The temperature is a characteristic one, rising, as a rule, one degree every hour, with a corresponding failure of pulse and circulation. This form of shock is also attended with spasm of the superficial vessels and congestion of the internal organs which gives rise to restlessness and craving thirst.

Of late years many writers deprecate the use of opium in shock, reliance being placed on external heat, strichnia, whiskey, digitalis and atropine. But look for a moment at the condition present, when vaso-motor and cardiac spasm predominates. Is digitalis or strichnia indicated or contraindicated? There is one remedy, however, which seems peculiarly fitted for this condition, a remedy which the older writers almost unanimously endorsed. Opium is first and foremost, our most powerful agent for the relief of pain. It blunts the sensitiveness of the injured nerves. If the patient is conscious its effect on the mental condition is to be considered also. It is an antispasmodic with a wide range of action; whether the vaso-constrictor or the vaso-dilator mechanism is at fault it should relieve. It is a powerful cardiac stimulant. It quiets restlessness, and more than this it has a peculiarly characteristic action on the skin, flushing it, warming it, dilating the cutaneous vessels. It meets not one indication but practically all.

Perhaps I can illustrate its action in no better way than by giving a brief *resume* of a case, one of many which the limits of this article will not allow me to quote. This case occurred in hospital practice some years ago.

August F—, age 36, caught his left arm in a belt, the arm being torn off near the shoulder. There was little blood loss. The pulse was slow and regular, but with the peculiar characteristic previously referred to. The visiting surgeon believing that no shock was present operated by Spence's method without delay at 4 P. M. Some hemorrhage occurred during the operation. The man did not rally after the operation and his pulse was 130, weak, thready. His temperature began to rise. Brandy, strophanthus, digitalis, strychnia, ammonia, ether and atropine, with external heat were all brought into play, but at 8 P. M. his pulse was 150 and his temperature 103°. The visiting surgeon insisting all this time that the restlessness, thirst, feeble and almost imperceptible pulse were due to hemorrhage, and over-ruling my protests, ordered a saline transfusion, and at 9 P. M., in accordance with his positive instructions I opened the radial artery. His pulse at this time could be felt only in the carotid. The radial artery was found with some difficulty, owing to poor light and lack of pulsation, which, with its contracted condition, gave it a peculiar tendon-like appearance. On division it did not even bleed, and a small canula was inserted with difficulty. A large amount of warm saline solution was injected in the proximal end of the divided artery or "against the current," had any current been present. His pulse at this time was 170, and temperature 104°. No improvement resulted, and at 10:30 P. M. the visiting surgeon, who had stayed by him faithfully, abandoned all hope and turned the case over to me saying: "Treat him for shock if you like, he is doomed." I summoned all the resident staff. They decided unanimately that the case was utterly hopeless, for by this time his temperature had risen to 105°, his face was cadaverous, and his pulse was so rapid

and feeble that it was impossible to count it even in the carotid. All agreed that the man was actually dying. Half grain doses of morphia were now given hypodermically every fifteen minutes, carefully watching its effect until $3\frac{1}{2}$ grains were administered. At 1 A. M. his temperature was 101° , and there was a great change for the better. The pulse was 128 and fairly strong, and at 2 A. M. he was in excellent condition. He made a rapid recovery with complete primary union in the stump. The treatment was heroic, but his condition was desperate enough to warrant it, and these mammoth doses neither produced sleep nor lowered his respirations below normal.

Length of operation alone is a prominent factor in the production of shock. I have in mind two operators, both skilful men, but one a rapid operator, the other slow. Both were operating day after day under identical conditions, on the same class of cases, with the same methods. The rapid operator seldom had shock; the slow one seldom failed to have it. The quantity of anæsthetic given is also an important factor; prejudiced once against the Clover inhaler I have become a convert. The dry method of operating, avoiding the drenching of patients and the abstraction of heat is a decided move for the better. Artificial heat is essential if the operation is long.

When shock is present strychnia and digitalis are indicated in some cases; atropine occasionally. Alcoholic stimulants are very serviceable as a rule. External heat is nearly always beneficial. Ammonia is frequently of marked benefit, and the dosage and frequency of repetition of these agents should be regulated largely by the degree of shock to be overcome and the way the patient responds to treatment. No absolute rule can be laid down. Morphia, unless for special reasons contraindicated, should be the sheet anchor. But latterly we are told that morphia should not be given! *Tempora mutantur*. "What next?" as the frog said when his tail fell off.

Notable Instances of Successive Cases of Phthisis in Certain Families and Households.*

By DR. JAMES NILLS, Janesville, Wisconsin.

My subject confines me to the discussion of successive cases of Phthisis in certain families and households. I will report a few cases to illustrate and substantiate the subject I have chosen.

If physicians were careful to instruct the people and warn them of the danger and show them how to control and destroy, to a certain extent, this microbe of tuberculosis, the prevalence of the disease would be greatly lessened.

I would almost as soon move into a house where there had been a case of Small-pox or Diphtheria, as to take up my residence in a house that was harboring these dangerous bacilli and where different patients had died.

The first case I will report is that of a young man, about twenty years of age, a member of a family of six children. He contracted a severe cold which soon developed into consumption and in about a year died.

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During the next year the family moved into another house. One year later two members of the family succumbed to the same disease and in a few months, the mother who had taken care of her children, became the victim of these bacilli and died in the course of a few months. The other members of the family were threatened with the same disease and moved to another state and since then one more has died and the other two members of the family are reported as having the disease.

Shortly after this family moved out of the house where the first son had died, another family moved in and in the course of two years a sister had died of the same disease. Two years later an only son died of Tuberculosis.

This makes three successive cases to my knowledge, that have died in that house of the same disease, within a period of six years. I am sure the paper on the walls has never been changed since the first case died, and I am thoroughly convinced that the bacilli of consumption still remains in that house ready to spring on the next favorable subject that comes within their reach.

As to the infection, I will report a case which illustrates. A German family that I know well had a relative come to live with them who was sickly. The case soon showed what it was. The young lady was not able to render much help or assistance to the family and she was given the care of a little baby. She held and took care of the little one a great deal of the time. Finally she died and within a few weeks the baby began to grow sick and it soon developed into a case of tuberculosis and within two months the baby followed in the same course.

Another case to illustrate is that of a farmer's wife. A young woman with three small children. The mother died of consumption and within one year, one of the children, a little boy, five years of age contracted the same disease and died within a few months.

I have always protested strongly against children being brought in contact with parents who have consumption. I think this is something, we, as physicians, should be careful to instruct parents and warn them of the great danger,

A prominent physician told me when I asked him as to this subject: "Well my father died of Tuberculosis about two years ago. My brother went into the room and slept without the room being properly cleansed and disinfected. In the course of a year he died of the same disease."

In a certain house in our city, two young ladies, the daughters of a physician, died of consumption. The first about six years ago and the second two years later. Shortly after the death of the last daughter the family moved from the city. Another family moved into this house, and within two years, just when in the beauty and bloom of young womanhood, a daughter contracted the disease and in a few months died. The bacilli had done their work well.

The product of consumptive parents is prone to be very favorable soil on which the disease can be easily cultivated and likely to be a catch basin for the bacilli. Tuberculous mothers should not nurse their infants, and one should never kiss a tuberculous person. Children may be reared healthy even if they are of tuberculous parents (provided they are kept free from bacilli surroundings). Healthy persons should not sleep with those known to have tuberculosis.

All cases should be reported to the Health Officer in the district in

which they occur, and the health department should send out implicit instructions how to control its spread. The State should have bacteriological stations at convenient points for testing all sputa from suspected cases.

It is generally admitted that the tuberculous patient constitutes the focus whence transmission of the disease occurs. This mostly takes place through the intermediation of the expectorated matter which, being indiscriminately disposed of, becomes dry and is ground to powder and in the form of dust is carried by currents of air to find lodgment in the respiratory passages of the healthy. If the sputum were in the first place properly disposed of the danger would be at once greatly diminished. We should not fail to impress this upon the people and tell them that it is necessary to sterilize the contaminated surroundings of the patient, including the bed, body and clothing, the furniture, the walls and floor of the living rooms.

At the present time quite an active agitation is going on in different parts of the United States and in several European countries, as to the wisdom of including plmonary tuberculosis among the diseases known to be infectious and contagious, and to report the same to the health authorities with a view of employing such hygienic and sanitary measures, as may restrain the spread of the disease, for the prevention of which it is known that so much can be done.

In addition to looking to the hygienic and sanitary surroundings of tuberculous patients, unable or unwilling, from poverty, ignorance or indifference to exercise sufficient care, the State should issue printed circulars as to the nature of Tuberculosis, its mode of transmission and the best means to preventing its spread and staying its advance. The question is "How can we prevent people from taking the disease?" If all local authorities were furnished with literature on Tuberculosis and hygienic and let such literature be plain and easily understood, and educate the people and require that physicians should report all cases occurring in their practice, we would do a great deal to prevent its spread and no person is better qualified to do this than a responsible physician.

The Treatment of Granular Lids.*

By T. C. EVANS, M.D., Lecturer on Ophthalmology and Laryngology, etc., Kentucky School of Medicine, Louisville, Ky.

In looking over the literature of trachoma or granular lids we find that in the treatment of this affection many and divers remedies both medicinal and operative, have from time to time been introduced, lauded, decried, and abandoned. A simple catalogue of which would of itself make a long paper.

For convenience and expedition the subject will be divided into :

First, the treatment of trachoma proper, embracing the medical and surgical treatment of the essential lesion of the disease, the true granulation or "sago" like bodies of the conjunctiva, together with the associated hypertrophy of the papilla and the general thickening of the conjunctiva.

Second, into the treatment of the complications of trachoma, embrac-

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ing the various forms of ulcerative keratitis, photophobia, pannus, and eczema of the lids.

Third, the treatment of the sequelæ of trachoma, embracing irregularities, opacities, and staphyloma of cornea, xerosis and cicatrices of the conjunctiva, deformities of the tarsus, ptosis entropion, trichiasis and distichiasis of the lids.

In this paper I wish to speak only of the treatment of the trachoma proper, leaving for future consideration its complications and sequelæ, and to mention only such remedies as are more or less in general use at the present time, together with the surgical procedures that seem to offer the most satisfactory results in the management of this tedious and troublesome disease.

The medicinal treatment consists in the local application of escharotics, stimulants, astringents and antiseptics. Those now in common use are the sulphate of copper, muriate of ammonia, yellow oxide of mercury, tannin, bichloride of mercury, and boric acid. The oldest and the almost universal remedy for all stages of the disease is blue stone or sulphate of copper. It has stubbornly held its own from time immemorial against all comers, and is to-day undoubtedly the best routine treatment for chronic granulations. Its method of application is a matter of the utmost importance, the thoroughness and duration, and frequency of its application, will determine not only its palliative or curative effects, but the amount of pain and reaction that will follow its use. The usual method is to rub a smooth crystal over the diseased conjunctiva. For convenience I use a crayon made from a large crystal and cemented in a wooden bundle with a screw cap, to keep the crayon clean when not in use.

In applying it, the operator stands behind the patient, who is seated in an ordinary chair, the lids are everted and cleansed, the crayon is then rubbed well over the exposed conjunctival surface. In order to make a thorough application to the superior fornix it will be necessary to tilt the everted lid forward and pass the point of the crayon under the lid into the cul-de-sac. To alleviate, as far as possible, the pain attending its application, it is well to begin the instillation of cocaine a few minutes before and again after the application of the blue stone. The frequency with which this will have to be repeated will depend on the indications, usually from two to four times a week will be sufficient. It is better applied in the morning, unless the patient's business interferes. The tolerance of the patient will determine the length of time the crayon may be kept in contact with the conjunctiva.

In acute trachoma and in the exacerbations of the chronic form, accompanied by a profuse discharge, nitrate of silver, in the strength of ten grains to the ounce, will be of great service, but should not be continued for a long period of time on account of the discoloration of the conjunctiva that will follow.

In addition to the application of escharotics and astringents by the physician, the patient should be given a wash of boric acid or weak bichloride with instructions to thoroughly cleanse the conjunctival sac three or four times a day.

The time necessary to effect a cure, even with the best of care and complete control of the patient, is much longer than is generally supposed. It is rare to find a case getting well under one year, and not at all uncom-

mon to find them lasting two or three years. In regard to the action of escharotics on the trachomatous conjunctiva, Stephenson says:

"Besides being caustic and astringent, those commonly used have for the most part antiseptic properties, their efficacy in trachoma probably depends on three factors. In the first place they destroy the surface microbe by their direct action, and after absorption no doubt act upon the micro-organism of the deeper tissues; another point is, that they excite an abundant flow of serum, which, in all likelihood, has a double action. (a) Mechanical, by washing away the micro organisms, and (b), a chemical, by virtue of the antiseptic properties possessed by blood serum. Lastly, phagocytosis may be concerned in the matter, it is conceivable that the destruction of the active germs of the disease may be carried out by the leucocytes which have left the vessels in response to irritation set up by the escharotic."

Of the many surgical procedures that have been devised and exploited for the relief of trachoma, only two are now in anything like general use. They are the operation of excision of the cul de-sac, and the operation of expression or squeezing. Excision of the cul-de-sac was advocated by Galezowski in 1874, and later it was extensively practiced in Europe, more especially on the continent; but for some reason the operation has never been popular in this country. Stephenson in his recent work on Epidemic Ophthalmia makes an enthusiastic plea for the operation, stating the objection so often urged that excision of the fornix would be followed by entropion, ptosis and symblepharon, with limited movements of the ball, are purely theoretical and have no foundation in fact.

Before describing his method of operating he says: "My results show that excision of the fornix, if properly carried out, is invariably followed by good results. As regards my own practice it is no exaggeration to say that in every instance the removal of the diseased folds has materially hastened the cure of the granular lids."

The advocates of this operation claim that the time of treatment is considerably shortened, that corneal complication clears up rapidly, that protection is afforded against relapses, and that the disease in other parts of the conjunctiva is favorably influenced by the removal of the superior retrotarsal folds, that the operation is easy of performance, free from danger and satisfactory in its results.

The treatment of trachoma by expression or squeezing out the granulation was first advocated by Mandelstam in 1883, but did not come into general use until several years later. The expression of the follicles was accomplished by the thumb nails or different kinds of forceps according to the fancy of the operator. The instrument that seems to more nearly fill all the indications, and the one commonly used in this country, is what is known as the Knapp roller forceps. In exceptional cases the operation may be done under cocaine anesthesia, but as a rule, general anesthesia is preferable and enables the surgeon to make a more thorough operation. Before beginning the operation the conjunctival sac is cleansed with a tepid bichloride solution. The lids are then everted and the retrotarsal folds, as well as the palpebral conjunctiva, is carefully and systematically gone over with the rollers rupturing the follicles by pressure and extruding their contents. With proper care, even the deep-seated granulations may be forced out without tearing the mucous membrane. But should a laceration of the conjunctiva occur it is a matter of no great

moment. In order to protect his own eyes, the surgeon should wear glasses during the operation; as the extruded material is sometimes thrown out with considerable force, and serious consequences might follow its introduction into the eye of the operator.

In exceptional cases a preliminary cantholysis may be necessary. A few years ago this operation was in common use, but owing to the disfigurement that so often follow it is now advised only in extreme cases.

The after treatment should consist of ice cloths with proper antiseptic precautions for the first forty-eight hours. The conjunctiva is surprisingly tolerant, and it is unusual to find much pain or reaction following the operation.

On the third or fourth day the routine treatment by escharotics and astringents may be resumed. In many cases a second operation will have to be performed. While the squeezing is the most rational and satisfactory of all surgical procedures in the treatment of trachoma, materially shortening the duration of the disease, lessening the complications, and preventing the dangerous and troublesome sequelæ, still in only a few cases will it be sufficient to effect a cure unless assisted by local applications.

The ideal treatment would seem to be a combination of the surgical and medicinal. The patient should be impressed with the fact that the operation will not be the end of his trouble, but that it will be necessary to diligently and patiently carry out the local treatment for week or months. He should be made to understand in the very beginning that trachoma is at best a dangerous disease; that whatever the method of treatment, its course will be long and tedious, and that neglect to faithfully and patiently carry out the physician's instructions will not only prolong the course of the disease, but will lead to the development of complications that may impair or destroy the eye, or be followed by painful and disfiguring sequelæ that no amount of treatment or skill can correct.

The Contamination of Water Supply for Country Schools.*

By J. F. FORD, M. D., Omro, Wisconsin.

The science of medicine has reached the point where, how to prevent disease rather than how to cure it, is the important question. Hygiene offers the best reply to the question. A series of sporadic cases of enteric fever, associated with an unusual number of cases of gastro-enteric diseases, led to an investigation into the probable sources of contamination of the water supplied to these patients. Over 100 country wells, including all the country schools of the township were examined as to (1) Construction; (2) Proximity of cess-pools, privies, barnyards, etc.; (3) Nature of soil; (4) Slope of adjacent ground, and (5) Defects in construction at or near the surface.

Only five wells (including one school well) were found above suspicion.

The following is a short history of two of the school wells:

Case 1. A large number of gastro-enteric cases occurred among the

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pupils during April, May and June. During September, October and November, four cases of diphtheria and three cases of enteric fever occurred. The well was the old fashioned abomination—a "dug" well lined with loose stones. The roots of a couple of large trees had formed a close network among the lining stones of the well, which was 60 feet from a couple of old privies that had stood in one place for 15 years, 10 feet from a constantly traveled road, and in the lowest part of the school grounds. A large depression or cesspool had been formed near the mouth of the well by the feet of the horses that were frequently watered there and the contents of this pool—usually consisting of offensively odorous mud and water—had ready and frequent access to the well below. The well was abandoned, another was bored and piped with two inch iron pipe to the depth of 30 feet. The health of the pupils has again returned to its normal standard.

Case II. In this neighborhood twelve cases of a mild type of secondary diphtheria, four cases of enteric fever, and a number of cases of gastro-enteric troubles occurred among the pupils. A well, much in the same condition as No. 1, was, against the advice of the health officer, "cleaned out" by simply pumping out the water and scraping the bottom. The next year the former diseases appeared but decreased in numbers and severity. The well was deepened, stone lining removed and curbed throughout with 22 inch tile and cemented joints. No more trouble has occurred for two years past.

Wells supplied by water from deep strata contain few bacteria unless contaminated by surface water in which they are usually abundant. Even then, as shown by laboratory experiments, pathogenic bacteria are unlikely to increase, but rather disappear in from two to six days, being "crowded out" by other bacteria whose natural habitat is in the same water.

According to Bolton and Frankland this is probably true also of even the typhoid bacillus, the anthrax bacillus without spores, and the cholera spirillum. Kraus, Wolffhugel and Reidel found similar results in hydrant water.

Frankland, in a series of investigations into the water supply of London, published in 1894, shows that water, by a process of sedimentation from disuse, may become very poor in bacteria, while the muddy sediment at the bottom of wells and reservoirs still contains enormous quantities.

Rubner in an investigation of stagnant water, in an unused well at Marburg, found that a specimen of the undisturbed contents showed only 1,620 bacteria per c.c., while a specimen taken after the contents had been stirred to a point of excessive turbidity, showed 1,475,000 per c.c. and these belonged to the well itself and were not introduced by contamination from surface.

Even the deepest artesian wells contain a few bacteria—from 4-43 per c.c.—while no matter how deep an ordinary well is dug it will contain more or less bacteria, even when successfully protected from surface contamination; but it must be remembered, (1) that such well water by the processes of sedimentation, before mentioned, together with some nitrification, always present to some extent, becomes practically free from bacteria, while the sediment at the bottom becomes far richer in bacterial constituents; (2) that the presence, therefore, of large numbers of bacteria

in such a case denotes disturbance and not contamination, whilst, conversely a small number denotes prolonged quiescence, and not necessarily absence of contamination, and (3) that the danger in contaminated water lies not so much in the quantity as in the type of micro-organism, and the frequency of contamination.

The experiments of Frankel, Koch, Benmer and Maggiora show that while soil at the surface may, in favorable locations, teem with bacteria, there is a dividing line, varying from three-fourth metres in virgin soil, to to about one and a-half metres in more densely populated areas, below which very few bacteria are found, and that as a consequence the "ground water" region is nearly unpoluted. Typhoid bacillus has been found to grow throughout the year at a depth of three metres, and the anthrax at one and a-half metres, but no pathogenic bacteria have been found in the deeper layers of the earth. (Frankel). It is also shown that the numbers of bacteria are greatly increased, (1) by cultivation and strength and character of fertilizers; (2) by the density and permeability of the soil, and (3) by the density of the population.

The rural population derives its water almost exclusively from shallow wells—(those less than 50 feet in depth, and sunk in superficial layers of soil overlying impermeable strata of clay or dense rock)—and at the same time it is the almost invariable rule to dispose of the sewage of the premises in such close proximity to, and in such a manner, that the water is in a state of constant contamination and grossest pollution, although at the same time clear, sparkling and palatable. For the organic filth from cesspools, drains, etc., in its passage through even a few feet of soil is deprived of suspended matters, but not of its dangerous properties, while the well has become only a gigantic culture tube for the propagation of all forms of bacteria—pathogenic and non-pathogenic. Shallow well are never above suspicion as to the purity of their waters.

The distance within which a well draws water to itself when its own water level has been depressed by pumping, depends on the amount of depression and nature of the soil, and has approximately a radius of 15 to 39 times its depression if in fine sand or gravel offering considerable resistance; 57 times the depression if in chalk with fissures; 68 to 100 times the depression if in coarse gravel allowing free passage; and 143 times the depression in red sandstone with fissures. Frankel has shown that the filtration at low pressure of water through fine sand one metre in thickness removes almost all pathogenic bacteria.

All wells that are "dug" must be so situated that the underground waterflow shall be toward the possible sources of pollution and at a distance of 100 to 160 times any depression of its water that may likely occur by pumping. The sides should be lined down to the surface of the underflow with stone or brick carefully laid in hydraulic cement; or Portland cement tiles of desirable dimensions should be used and the joints carefully sealed with hydraulic cement. The mouth of the well should be closed over with large flat stones laid in cement, or some other expedient used to effectually exclude any foreign substances, and should be at least two feet above the surface of the ground, and protected with a coping. The water should be raised by a metal pump supplied with a contrivance to produce a suitable degree of aeration of the water within the well. The waste water from pumping should be carefully conducted away to a safe

distance, and the pump should not reach nearer than 18 inches of the bottom of the well, thereby leaving the sedimentary deposit undisturbed.

Antiseptics on the Battle Field.

By EDMUND ANDREWS, M. D., LL.D., Professor of Surgery in the Northwestern University, Chicago, and Surgeon of Artillery in the Late War.

Three powerful influences are revolutionizing military surgery.

One is the introduction of magazine guns of such rapid fire that fewer men are required to occupy a given space. In consequence commanders are spreading out the fighting line so that the 5,000 men, formerly making a line of battle only a mile long, now stretch out to two miles, and more assistant surgeons will be required to attend them.

The second is the new powder which throws the bullets 2,000 feet a second with a range of two and a half miles. The effect of this is to widen the danger belt so that storms of bullets may rake the ground from front to rear for a distance of over two miles compelling medical officers to attend a wounded men in widely scattered locations, carrying with them antiseptics, dressings and instruments suited to all emergencies.

It is obvious that in future wars great changes must be made in the military surgeon's tactics. One excellent writer is so impressed with the long range of the new rifles that he declares that in level regions the field hospitals will have to be put 3,000 meters behind the fighting line. As this distance is about two miles, the statement is of course absurd, and made by one who had no personal experience in battle. The field hospital must be reasonably accessible from the fighting line, where most of the wounded lie, even if a few surgeons are killed. The danger will not be excessive, for there are in almost all fields swells of ground behind which the surgeons and the wounded can find tolerable shelter. Yet it is true that on level areas the field hospitals must be set further back than formerly, and ambulances cannot go so near to the front as they used to do without the destruction of the horses, drivers, and the wounded whom they transport.

All these things will bring new embarrassments to the surgeons, and render it increasingly difficult to employ in field service all the elaborate precautions, complicated appliances, and slow methods of modern aseptic and antiseptic surgery. The exigencies of battle will not permit it.

A hundred questions arise here, but we will not now discuss them. I wish in this paper only to inquire how shall we manage to overcome the difficulties of the future field service so as to give the wounded a reasonable amount of the benefits of aseptic and antiseptic surgery?

The great difficulty is the transportation. We must "march light," as we used to say. The modern military commander will never allow us to load up the trains with anything but the most urgent necessities. Old time war was different. It was then supposed that soldiers must necessarily have their grog, hence they encumbered the trains with countless wagons loaded with barrels of rum, and other ridiculous impedimenta.

When Gen. Burgoyne, in our revolutionary war, tried to march from Lake Champlain to Albany and found himself confronted and stopped by superior numbers of Americans, he called a council of war to decide whether he should surrender. He laid before the council the state of his

supplies in these words. (See Burgoyne's justification of his surrender.) "We have five day's rations of food. They have no longer any rum nor spruce beer;" The council, of course, voted forthwith to surrender. Now soldiers are expected to fight on pluck and not on liquor. The General will not lumber up his trains with whiskey barrels, nor even allow surgeons to carry anything that is not a dire necessity. We have to learn the savage truth that in war the killing business is considered more necessary than the curing. So like all other officers we have to "strip for fight," and consider how little we can possibly get along with.

We will not be allowed an ounce of unnecessary weight, and must plan how to carry only such antiseptics and appliances as are easiest of transportation.

The two best antiseptics for military use are corrosive sublimate and boric acid. The former for its great germicide energy, and the latter for use in irrigating sensitive organs and cavities, and for painless sterilizing of wounds.

Corrosive sublimate is, perhaps, the most portable of all antiseptics. It should be made into tablets of known weight and kept dry in tin boxes. As its solutions corrode iron and tin kettles it will have to be dissolved in a wooden or papier mache bucket, or in a graniteware basin. A nest of these basins should be packed for transportation in the bucket.

Carbolic acid is very inconvenient for general use at the field hospital. If packed in glass bottles it is totally inadmissible, the bottles are constantly breaking, yet a few tin cans of it made like ether cans are useful. Iodoform is a weak antiseptic. Boric acid is a better germicide than iodoform, and easily carried in cans or boxes. It corrodes nothing. A pretty full supply should be taken along to rub into the meshes of gauze drains, and to cover the orifices of the wounds, to distinguish it from simple absorbent gauze, both of which will be required. Sublimate gauze cannot be used for head bandages, because particles of the bichloride drop into the eyes and inflame them.

Boric acid is important for making extempore douches, and for irrigations of cavities, because it is not irritant nor poisonous, and yet in saturated strength it is a very efficient antiseptic.

On the whole it will be best to rely for antiseptic materials mainly on bichloride tablets, and plenty of powdered boric acid. For dressings we must have simple absorbent gauze, and also sublimate gauze. The latter should be tinted to distinguish it from the other. They should be sterilized and dried by the manufacturer and firmly pressed into two pound cans, and soldered up air tight.

In regular pitched battles there will be time to boil some camp kettles of water, at the field hospitals, but in sudden emergency work sterilized washes must be made by putting antiseptics into any water that can be obtained.

The perfect sterilizing of instruments will be a matter of considerable difficulty where multitudes of patients are, one after another, forced rapidly on the surgeon. In pitched battles the instruments can be rapidly washed off in boric acid water between operations, and then dipped in boiling water, or the boiling water may be poured over them. There will be no time to boil them the regulation twenty minutes. There should be a tin tray of boric acid water to lay them in. The operating table or board can

be rapidly brushed with corrosive sublimate solution, as each patient is removed.

When the work is urgent it will not be possible to spend a quarter of an hour in shaving and scrubbing the skin of each wounded man, and another quarter in preparing the surgeon's hands. A rapid scrubbing with pretty strong corrosive sublimate water is all that time will permit.

The clothing of a soldier in the field is very foul with dust and decomposing sweat, hence the bullet, after passing through the clothing, generally inoculates the wound with germs, and often with shreds of the cloth itself, hence in most cases it is necessary to insert a small drain of bichloride gauze at least through the skin, and often deeper. However, judgment must be used about this. The small modern bullets often traverse a muscular limb without exciting any suppuration except close to the surface. It is a fact noticed in our late war that healthy soldiers wounded, and afterwards treated in the open field rarely used to have any erysipelas, if there was a reasonable attention to drainage at the first dressing, although there was no formal attempt at antiseptics in those days. Erysipelas appeared mainly in the hospitals.

It is obvious that the future military surgeon, even when he is fully prepared in anticipation of a pitched battle, will not be able to make his dressings and operations as thoroughly aseptic or antiseptic as in civil practice, yet by faithfulness he can make a considerable approximation to it, and save many more lives than his predecessors. Even in his emergency work, with no field hospital at hand, he will be able to save more than the surgeons of the times gone by.

Laparotomies will hereafter be done in the field for some of the wounds of the abdominal viscera. Though the antiseptics and asepsis will necessarily be imperfect, it will often be much safer to operate at once than to postpone it for hours in the vain hope of making better preparations. Abdominal gunshot wounds are very fatal, as we all know, even in civil practice, but I am persuaded that a competent man can save many lives by prompt laparotomy on the field of battle.

Wounds of the pleural cavity will not require such immediate operation, so that incision can be deferred a day or more. Some wounds of the pleura, if protected by a compress of bichloride gauze, and a dusting with boric acid heal promptly without suppuration. Those which suppurate can be treated later as in civil practice by drainage tubes and daily boric acid irrigation.

In former wars the horrible septicism ensuing in bullet wounds of the cull joint compelled primary amputation above the injury. It is a fair question, but not yet settled, whether a large portion of these limbs may not be saved by antiseptics. These wounds are of two classes.

1. Where the bullet has simply opened and infected the capsule with or without a moderate injury of the bone. There seems no reason why we should not open the joint freely and examine the condition, and if the bone is not ruined, two drainage tubes can be put in above the patella and two below, the cavity washed out with boric acid, and the whole dressed antiseptically, the irrigation being repeated as often as necessary. This does admirably well in civil practice. If the condition is very favorable the tubes can be omitted and the whole closed up with stitches. In many cases the motion is preserved in civil practice. In war the condi-

tions are less favorable, and the tubes might have to be used, but still the limb could be saved, though with a stiff joint. A resolute military surgeon, who knows how to disinfect a knee joint is not obliged to amputate in such cases.

However, in many instances, the end of the femur or of the tibia is found on opening the joint to be shattered into a hundred pieces of bony gravel, looking as though the bone had exploded. In such cases doubtless the limb must be amputated. Still we may fairly raise the following question. In cases where the patient does not have to be hauled long distances in the ambulance, could not a resection of the joint be made?

Primary resection of the knee joint in former wars had a mortality of 85 per cent., so that it was justly condemned, being far more dangerous than amputation. A new study of this subject should be made, for it with such antisepsis as a field surgeon can now accomplish perhaps most of this mortality can be avoided.

This question has not yet been settled, but I hope that before another war comes, light enough may be shed upon it to guide the field surgeon in his duties. The wounded joints of the superior extremity rarely require amputation. Some require tubing and irrigation, and others resection. Resections of the superior extremity do well in war, and the limb should always be preserved unless there is destruction of the principal nervous and arterial supplies.

Saturated solution of boric acid is the best fluid for the irrigation of joints.

2520 Prairie Ave., Chicago, Ills.

School Hours Too Long.*

By WILLIAM MEACHER, M. D., Portage, Wisconsin.

Looking from the standpoint of a teacher and physician, I have long been impressed with the belief that school hours are, in general, too long for children, for the greatest good of body and mind.

The usual school hours are about six a day, three in the forenoon and three in the afternoon, with two intermissions of about fifteen minutes each. Let me ask how many grown people can go into a crowded room and study six hours a day? or, if they are able to do it in spite of the drowsiness and stupor that comes upon them, how long will it be before the health suffers?

I believe that few comprehend how the child's nature rebels against the confinement and restraint of the school-room, if kept in too long, and how soon a distaste for books and study may be engendered in some.

The practice of keeping children in the school room after school hours for the purpose of punishment, is a very unwise one.

If the hours of school could be reduced to about four instead of six hours a day, two in the forenoon and two in the afternoon, with the usual intermissions, children would undoubtedly learn more, and with a greater relish, than in the longer hours, especially if teachers could give them the necessary time and attention. To this end we should have more teachers and fewer pupils for each teacher. Then teachers should have the ability and opportunity to learn the peculiarity and bias of each pupil's mind,

*Read before the Wisconsin State Medical Society, June 5th, 1896.

and be able to lead and direct it in the pursuit of the kind of knowledge for which it is by nature best fitted, whether that be a knowledge of books or "knowledge never learned of schools." Of course all this means much more expense, and less "machine made" education, at so much "per capita." But how can money be better used than in educating our children? Life has no higher duty, except it be the preservation of their health, both in body and mind.

If we are going to win in the fight with the "great white monster," consumption, the school room is one of the most important points to be looked to.

Foreign Body in Bladder.

By T. K. MITCHELL, M. D., Lawranceville, Ga.

Many and curious are the things that happen, and varied are the uses to which the object was intended. The intention of the bladder is evidently to act as a container of the urine until it can be conveniently ejected, yet not a few have been the perversions of this object. Record shows that it has been made the receptacle of broken catheters, bougus, slate pencils, silver tooth picks, etc.

On the 27th of February last, was called to see a young lady aet 30, (being accompanied by my associate Dr. T. B. Bush) and was surprised to learn that she had in making an examination of her urethra with a hair pin, permitted it to slide into the bladder, she being in a dorsal position at the time and the pin introduced in normal shape with head foremost into the urethra.

After having a history of the occurrence we thought the hair pin might still be in the urethra, and made a careful examination but found that it was not there. Examination was then made of the vagina, thinking the patient might have been mistaking as to place of disappearance, not finding it there we introduced a metal catheter into the bladder, being careful not to let any of the urine escape, on manipulation, we could hear the catheter clinch against the pin, thus assuring us, that the pin was really there. Now came the procedure for its removal we tried to grasp it with forceps, but to no avail. The idea that a hook would better answer our purposes, caused a stilette of a flexible catheter which was perfectly clear to be brought into use. The point was bent so as to make a good hook, which could easily be introduced into the bladder.

We knew that if we could catch the pin, so that the hook would bring the head down first, it could be removed without much difficulty, several attempts were made to no purpose. The catheter was again introduced and by manipulation, succeeded in changing the position of the pin, it was then located on the left side of the bladder near the base. The hook was again introduced and succeeded in catching the pin in proper place and it was withdrawn head foremost through the sphincter out through the urethra when it was caught by the hand and removed, to our great satisfaction and the joy of the patient and relatives. No injury was done, only a little soreness caused by frequent introduction of instruments.

We prescribed B. carb. of soda and gave Fl. Ex. Buchu and Swt. Spts. Nitre to bring about a decrease in activity of urine for a few days. In a short time she was feeling as well as ever, all soreness being gone.

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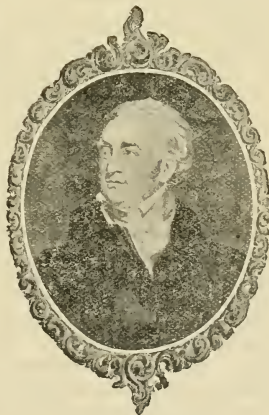
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The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street, NEW YORK.

The Charlotte Medical Journal.

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TUBERCULOSIS.

The controversy over the etiology of tuberculosis, which has been so much in evidence since the discovery of tubercle bacillus by Koch, has now given way to the more practical one concerning its prevention and cure. That tuberculosis is an infectious disease no one can doubt who has once observed the direct positive results obtained by inoculation with tuberculous sputum, and dust or milk known to be infected with the bacilli into the guinea pig or rabbit. The wide-spread prevalence of the disease in the human race (one in eight of all deaths being caused by tuberculosis of some form) demonstrates clearly how often man falls a victim to this dread scourge. Appalling as such a statement is when one considers it due to an infectious disease, yet the fact should not be lost sight of, that there are qualifying conditions which are of most vital importance in the growth and development of the disease. The ubiquitous tubercle bacillus, as with many other germs, often finds lodgement in man by inhalation, or the ingestion, of tuberculous milk or meat, but it falls on barren soil and is quickly rendered harmless. Who is this? Because the resisting powers of the individual are capable of destroying the invading host. These resisting powers are exemplified by the man as seen in perfect health, whose organs all perform their functions perfectly and in whom cellular activity is in its most perfect state. Contrariwise, when man's vitality is lowered by any inherited constitutional weakness, malnutrition whether due to disease or insufficient food, bad hygienic surroundings, physical or mental depression from over work or abuse of the appetites and passions, his resisting powers fall way below par, and there then exists the inherited or acquired pre-disposition to the disease. The congenital transmission of the disease from parent to off-spring has been proven, but it is the exception which proves the rule; and it is this knowledge that a predisposition to the disease and not the disease itself is the child's inheritance which offers us such promising results in diminishing the prevalence of and the possible ultimate eradication of this dreaded enemy of mankind.

To attain this end must be a slow process unless some brilliant mind discovers unexpectedly the means of producing an artificial immunity against the disease, as Jenner did for small pox, and Behring and Roux or diphtheria. While scientific men are working along this line much

good can be done by disseminating the knowledge of the source of infection and how to avoid them. For all practical purposes the sources are three fold, viz: the sputa, stools and pus from ulcerating lesions; second the milk supply; and third tuberculous meat; these are in the order of their frequency. Personal contact with a tuberculous patient is not attended with any danger if the discharges are always kept moist, for it has been proven beyond cavil that the expired air of consumptives does not contain tubercle bacilli. The danger lies in the dried sputa and other excreta; these are the sources of infection, and every physician should emphasize with his patients the necessity of destroying them, preferably by fire; if this is impractical always keep them in a moist condition until they are deposited in some place where they can do no harm.

Concerning the milk there is cumulative evidence in abundance to show that milk supplied in any one of the larger cities is frequently contaminated with tubercle bacilli; inasmuch as this constitutes the chief form of nourishment for children, and in them glandular and intestinal tuberculosis predominates, the urgent need of eliminating this source of infection is apparent to physician and layman alike. Koch's tuberculin supplies us with the means of eliminating bovine tuberculosis; and although legislation in New York and Massachusetts has failed in accomplishing what the people demanded it is a step in the right direction, and ultimately it is more than probable that laws will be enacted compelling all dairy cattle to be subjected to the tuberculin test. The Boards of Health have it in their power to do much towards hastening the actions of the Legislature, and in New York City and Alleghany and other places have already enacted new regulations and begun the more rigid enforcement of old ones concerning the care and attention of dairy cattle. With their power and scientific intelligence in the van it will not be long before the opponents of this much needed reform will be routed.

The exclusion of tuberculous meat would be more easily brought about if tuberculous cattle were excluded from dairy herds, whatever animals thus escaped detection would have to be passed upon by the public inspectors of the meats, thus there would be small chance of such contaminated meat being offered for sale. Reforms are always difficult to bring about especially so when tradition and ignorance are opposed to them. Tradition serves to strengthen the prevailing idea among the unenlightened that inheritance is the most important factor in the development of consumption, when ignorance of what is the distinct cause is added to this carelessness about the disposition of the sputum &c., is the the natural consequence and a wide-spread dissemination of the infections material results.

THROUGH the kindness of C. Ironmonger, Agent Seaboard A. L. Railroad we received a copy of the Summer Resort and Outing Guide for 1896. This is a neat pamphlet and gives many beautiful Summer Resorts easily accessible by the S. A. L. Railroad. This elegant and well managed Railroad traverses the most noted and magnificent resorts in the country, in the Carolinas, Tennessee and Southern Virginia. It offers to the Summer Service the unsurpassed advantages of a most excellent vestibuled train equipment and reasonable rates to his Summer Home.

RENEWED ANTI-TOXIN DISCUSSION,

Dispite all that has been written about anti toxin in Diphtheria it is evident that the last word has not yet been said. To the country physician whose work is outside the great centres of laboratory facilities and who depends for both diagnosis and treatment upon the means at his command the discussion of the subject, as it has been carried on, presents two unsatisfactory features. If it is what its name implies, and curative beyond all other remedies in the *Materia Medica*, the doctor in the country wants it as urgently as those within range of the free distribution of city health boards. If it has "no merit either as a preventive or remedy" the sooner all find it out the better. Statistics in its favor have been abundant if not convincing, but the positive factor of credit actually due the drug remains an uncertain quantity in the midst of much negative evidence. An attack upon this remedy begun a year ago by one of the visiting physicians of the Willard Parker Hospital, New York, and urgently renewed at a recent meeting of the Academy of medicine in that city is so vigorous, so earnest, and so apparently authoritative that it demands either disproof of its truth or the displacement of the serum from honest therapeutics.

A year ago Dr. Joseph E. Winters opened what proved to be one of the most acrimonious discussions in the history of the Academy with the following words: "Some months ago I shared with my colleagues the hope that a specific against the toxins of the diphtheria bacillus had been discovered, but three months of daily observation in the Willard Parker Hospital has been a sad, an extremely sad disappointment to me, and I regret to say that as a result of that experience I am here tonight to speak in opposition to the anti-toxin treatment of diphtheria." His remarks were based upon the daily clinical observations of the effects of this treatment in 154 cases, which also formed the bases of the paper of the evening presented by another member of the staff of the same hospital and a member of the New York Board of Health. Dr. Winters succeeded in showing that the author treated his statistics largely by elimination and exclusion, juggling with the death rates of different periods to suit his own advocacy of the remedy. He also openly charged that all mention of the more serious disturbance—the septicæmias, the pneumonia, the convulsions, the suppurations, high temperatures, pain, its influence on the kidneys, the nervous system and its destruction of the corpuscles of human blood—was sedulously suppressed. During the last year Dr. Winters continued his investigations. He visited many of the hospitals in England and Europe where the serum is in use to collect data in regard to its effects. The result of his wider experience confirmed his conclusions as to the dangerous and useless character of the alleged specific. Dr. Stowell followed Dr. Winters elaborate argument by a study of 7,000 cases, and reached the same conclusion as to the danger of the remedy.

Now the manipulation of mere statistics may show anything a skillful writer desires, but when so profound an impression of distrust follows long and extensive personal observation of patients treated by this method and when the speaker declare that nurses and physicians stricken with diphtheria in hospitals where the serum is used refuse to permit its use in their own cases, a suspicion that their refusal is well grounded seems ustified.

In our judgement the value of anti-toxin should be settled beyond dispute before it is employed in private practice. Its merits, moreover, must be judged by the effects upon patients who die, or who manifest symptoms of septic poisoning and make a poor recovery.

To cite that a thousand or ten thousand, or any number of cases get well under its administration, proves nothing whatever.

Very able clinicians see in anti-toxin only the saver of thousands of lives, while others, in a minority, but not less competent to form an opinion, regard it as a poison which complicates the disease it utterly fails to cure, and to the destructiveness of which it has added many a sudden death.

For our own part the writer regards Dr. Winters' challenge to its routine employment as a public and valuable service to the community. We would refuse to permit its use in our own practice and would personally prefer good nursing and skilled medical treatment to the uncertainties of horse serum should we be attacked by the disease again ourselves.

POST-PARTUM VAGINAL DOUCHING.

The usual routine practice of the nurse is to douche the vagina at least once a day after delivery for one week and even longer. Practitioners sanction this, and what is more wonderful, in many cases approve of it. That this is the case will hardly be denied. Students are taught it. In a handbook of midwifery recently published by one of our foremost modern school teachers the first point in the after treatment of a labour is put down thus—"Make attendant give antiseptic vaginal douche."

Given a patient having passed through a comparatively normal labour—forceps may or may not have been used—such a patient is never allowed, by me, to be douched.

The whole process of delivery is a natural one. There are no diseased parts, no infected sores, unless infected from without, and Nature provides, if left alone, against infection of the uterus by contraction and otherwise. Why, therefore, should we risk introducing septic germs by solutions very doubtfully antiseptic? Krœnig has shown that the vaginal secretion in normal pregnancy is free from pathological germs, and that it possesses a distinct germicidal power. He further contends that syringing the vagina with antiseptic solutions destroys its germicidal powers. Krœnig concludes that "prophylactic syringing should be given up even in pregnancy with gonorrhœal infection."

In a normal case of labour we leave behind healthy, although abraded surfaces, and we leave the parts ready to heal. The uterine walls contract, the cavity diminishes, the vessels become sealed with healthy blood-clots, the cervix contracts, the vaginal walls approximate, and the parts are practically secure. If the external genitals are kept clean by frequent sponging with a solution of boric acid and dusted with boric powder, no infection will, in ordinary course, take place, and all will go well with the patient. If, on the other hand, we permit a nurse—who has often little belief in, and less knowledge of, antiseptic treatment of anything—to introduce instruments and wash out either the uterus or vagina with solutions of doubtful properties, we must expect bad results.

CANCER CURE INSTITUTIONS.

Probably no where else in medicine is to be found a greater contrast than exists between the attitude of the reputable surgeon towards malignant disease and the roseate statements of "cancer specialists." It is peculiarly deplorable that unfortunate patients, to whom science can give only a reprieve or palliation, should be victimized by the glowing promises of certain and painless cure by escharotics. Moreover, for the awful misrepresentations frequently made, and the impositions practised we find responsible not ignorant and uneducated pretenders, but men who are graduates of recognized medical schools.

Outspoken exposure and condemnation of their terrible quackery is rarely observed in Medical Journals, for it is seldom that any physician has either the opportunity or the courage to denounce the evil from his personal knowledge.

In presenting certain carefully tabulated facts to the State Medical Society of New York we must credit Dr. Nathan Jacobson with performing a much needed service to the profession. The analysis presented by him of the results in one of the largest and most successful institutions for the cure of cancer in the United States is rendered the more startling in contrast with the enticing pamphlet which it issues to secure business. Printed circulars set forth the simplicity, painlessness, brevity, and efficiency of the treatment in these institutions, which "cure" in from two to five weeks' time—"without fail"—a disease that they boldly assert is beyond the reach of surgery.

Into one of these traps, allured by the promise of a speedy cure, Mrs. A—, a case cited by Dr. Jacobson, hopefully and confidently entered September 19th, 1893. She spent there fourteen months of daily torture, the details of which, as related by the authority for the report, are well nigh incredible, and she died a month after being taken home. Her husband paid \$50 per week for so-called treatment of his wife, during the entire period of fourteen months. This included neither room nor board, but was simply for the "professional visits" of the medical attendant, who "cured" her, and sent her home "free from every vestige of cancer!" Exclusive of all other necessary expenditures in this case the "fees" alone amounted to \$3,000.

When this patient entered the hospital there were twenty-six under treatment, all promised speedy cures. Ten of these expired before Mrs. A. The average duration of treatment for these was eight months—before they died. Six other cases progressed into a "hopeless" condition, after an average treatment of ten months, and went home to die. Eight other cases are tabulated as not having recovered, despite periods of treatment averaging far greater than the circulars state is sufficient to cure. This leaves two cases, classified as "doubtful," inasmuch as there was evidence of recurrence, while they still remained in the institution.

This is certainly a pitiful showing. We presume there are many among the laity, and possibly a few among practicing physicians, who have given credit to assertions of the superiority of escharotics over the knife. We all know how disappointing excision often is, but compared with the horrors related by Dr. Jacobson, the knife is assuredly merciful and swift, and cannot be less sure.

The victim of cancer has peculiar claims to our sympathy and pro-

tection. It is a malignant disease. It baffles medicine, and all but defeats the utmost resources of surgery. It would be appropriate, it seems to us, for legislation to step in and see to it that the victims of so great a misfortune do not also become the prey of the worst form of charlatanism known to this age of medicine and humanity.

NATURES CONSERVATISM.

It is customary to regard prostitution as an evil without mitigation and without benefit to our race. It is a vice which cannot be suppressed, and is but illy regulated by police authority and legislation. The brothel is believed to flourish in every race above savagery, in every clime, under every religion and under every form of government. It evidently possesses the universality of an institution of nature, and such, in fact, it may properly be held to be. That it performs a useful function is not open to doubt when we reflect that the common prostitute rarely propagates her kind.

From the medico-economic point of view, and having regard to certain phases of the social evil, it may justly be claimed as a selective, eliminative and conservative agency of nature, of the utmost value to the community, the family and the individual. For, while the sexual instinct is one of the noblest, holiest and most elevating that stirs our bosoms, the source of the highest unselfishness and most perfect sympathy, affection, fidelity and heavenward aspirations of the human soul, its abuse is a crime against nature which she directs unerringly to the protection of the non-criminal classes.

Statistics show that the recruits of the brothel, to the extent of more than seventy-five per cent., are drawn from the idle and shiftless, and from the defective classes. They range from "low," to "lower," and "lowest." If not all illiterate, they are for the most part uneducated and unintelligent. Du Chatelet found that among 4,470 of the prostitutes of Paris, 2,332 could not sign their names, 1,781 could write but poorly, and only 110 could write with ordinary legibility.

It is an axiom that a handsome face is a thing rarely seen in a prison, and it is equally true that a prostitute possessed of a spark of refinement, of education, of "good manners," or of personal beauty is extremely rare, and either soon marries or ceases her destructive vocation.

Few ever reform. Mission work among them is nearly sterile, and from the moral, legal and philanthropic standpoint the case is utterly hopeless. But just here, nature's conservatism steps in. She stamps the vocation with ruin; she limits the evil to a class, and sets her seal to the death warrant of the individual whom she deprives of posterity. The "institution" becomes a huge sewer, a garbage dump, through which are carried off, as through an escape-valve for the purification of the race, the least desirable elements of both sexes. The weeding out process is grandly selective, aiding in the elimination of degraded women and degenerate men in a way unequaled by any other method at work among modern nations from which science has banished the plague.

The death rate of prostitutes is given as seventy-five per cent. greater than that of normal women. Their average term of life is but nine years, and their disease dies with them. The extent to which nature averages the violation of her laws and makes prostitution a self-limited evil—a

generation to itself—is one of the most remarkable facts in sociology. Less than fifteen per cent. marry, and of the infinitely small number of children born alive to them very few survive to inflict an evil heredity upon the innocent. Ignorance, disease and neglect protect us efficiently from the second generation. In first sterilizing and then rapidly destroying the degenerate and worst specimens of both sexes this vice and venereal disease conserve virtue.

TREATMENT OF DIPHTHERIA.

In its malignant form there is no disease so little amenable to treatment as diphtheria.

Antitoxin has been lauded as a specific during the last few years, yet there are many who do not believe it has any beneficial effect upon the disease. We have had no experience with its use in this disease, and, therefore, do not propose to speak of it in the treatment.

There are mild and malignant cases, and in the malignant form where the patient is saturated with the poison, and the stomach rejects everything, we have never seen one recover, and death usually occurs within seventy-two hours. In such cases, and we have had them, we always prepare the family for a funeral, and we are sorry to say have never been disappointed. Now if antitoxin is what is claimed for it by some, these cases are where it ought to show its virtues, and in the future we will be glad to try it in those cases.

The next most fatal cases are where the larynx is involved, and in those cases we would also recommend antitoxin.

Fully nine-tenths of the cases, so far as our experience goes, does not involve the stomach nor the larynx, and it is the treatment of those cases that I particularly desire to call the attention of the profession.

The remedy is not a new one, and there are few physicians who do not use it in these cases, but we think when they fail with it, that they have not used it correctly.

The remedy is a combination of chlorate of potash and the muriated tincture of iron.

It is the quantity given and the manner of giving it wherein lies the secret of success. We have often been called to see a child with a high fever, aching in the limbs and chilly sensations, and on inspecting the throat find a white deposit on one or both tonsils and the gland at the angle of the jaw, and the outside enlarged on the side of the tonsil effected. We do not enter into the discussion of the diagnosis, but we have yet to see our first case of a diphtheritic deposit that did not leave an excavation or hole where the deposit was located.

Of course we take it for granted that every precaution will be taken to prevent its spread. Now we will give our treatment, which we have used for many years.

For an adult we make a four ounce solution containing one ounce of the muriated tincture of iron, two drachms of chlorate potash, two ounces of glycerine and one ounce of water.

We order a teaspoonful in a sherry wine glass of water every hour during the day and *every two hours at night*. We forbid any drinks immediately after taking the medicine, and we *always* wake them at night for them to take the medicine. These directions apply to *all* patients and we accept no excuse for any violation.

From four to twelve years of age we put a half ounce of the tincture of iron and one drachm of chlorate potash. From one to four years two drachms of the iron in the four ounce solution. Occasionally a child will be found that you will have to vary the dose a little.

For eighteen years we have followed these direction and used this remedy, and while we have no record of our cases we think there is no remedy yet that would give better results.

We have many, many times had parents to say to us, when the deposits disappeared in 36 or 48 hours: "Doctor was that diphtheria?" We never expect it to remain longer than seventy-two hours, if our directions are faithfully carried out.

Absolute rest is essential in the treatment of this disease, no matter how well the patient may feel. Liquid diet, nourishing and easily digested. Under this treatment in our hands we have seen the deposit melt away like snow before the sun.

If the patient will get up, it will take three or four times as long for the deposit to disappear.

SPECIALISM IN MEDICINE.

The rapid augmentation to the medical profession in this country, and the relatively large number of specialists, is to thoughtful minds a matter of serious consideration. The proposal of any practitioner to devote himself largely or entirely to some particular line of work, should have behind it thorough scientific and professional attainments, and more than the minimum of fitness and adaptation for his chosen specialty. Back of all this there should be a conscientious and unswerving purpose to so comport himself in his relations to the patients of other physicians who come to him directly or otherwise, and with the public, that his methods and motives are above suspicion. This may appear like an ideal standard, but nothing short of this will meet the demands of a discrimination profession or the approving conscience of an honest man. But this will not suffice. Fitness as here used is a comprehensive term. The discipline and special training which might fit one man to be a gynecologist and another an oculist does not meet the reasonable demands of the situation. No matter how thorough his training, how exact his methods, and how broad his attainments in any special line of work, he should, before he aspires to pose as a specialist, be known and well known for a period of years as a capable and successful general practitioner. No training which money can purchase, or careful study acquire, unassociated with personal experience can stand the test of time. True it is that not all who take upon themselves such sacred prerogatives are not influenced by motives which would bear the light of unflinching self-examination.

Examples among American specialists are not wanting who have been true to such lofty ideals. Such a man was Cornelius R. Agnew, of New York, a physician and surgeon of recognized ability, a man of high character, occupying positions in society full of influence, who at mature age became a specialist in diseases of the eye, dying prematurely with a reputation unsurpassed, if not unequalled, by those of his time. His example and attainments will serve as a model and inspiration to any proposed specialist who is willing to bide his time.

ACUTE SCARLATINAL NEPHRITIS, A LATE DIAGNOSIS.

As emphasizing the necessity of measuring the urine in scarlatina when practicable, and watching whether it is passed when not practicable to measure it, is in infants, the following experience is cited. The patient was a nursing colored child of ten months and had been in good health. Its skin was almost white which fact helps explain the "reserved" diagnosis. We were called to see the baby to prescribe for teething, which like money in older people, is said to be the root of all evil in infants. The baby no doubt was teething which as is well known is not an unusual occurrence in the young, but that did not explain the suspicious looking blush which covered its skin and which could hardly have been called an eruption by the lamp light in which it was seen. No history of exposure to scarlatina could be obtained nor were the symptoms sufficiently pronounced to lead to a diagnosis of anything so serious, but inasmuch as there was an apparent erythema the caution was given to notice carefully the excretion of urine for at least three weeks and notify us if it diminished that is observe closely how often and how much the napkins were wet. A visit next day found the youngster as well as usual and no visible redness of the skin. The slight irritability of temper had disappeared and the child was supposed by its parents to be well, though meanwhile they recollected that their wash woman had scarlatina at home, and while not then washing for them had visited the house. The caution about wetting the napkins was repeated and the case dismissed.

Two weeks later we were called in the evening to find that baby had passed no water for twenty-four hours. Poultices were applied over the kidneys and kept there, hot, for three or four hours at a time and renewed at short intervals; hot cloths to the perineum, and small and frequent doses of nitre were given. At the end of thirty-six hours no water had been passed and the baby was not at all disturbed by the situation. Treatment was continued with directions to send for us at the end of six hours if no result was obtained. On our third visit some ten hours later we were relieved to hear that baby had begun wetting shortly after our second visit and had done so freely at intervals ever since or as the mother put it: "Doctor, I was afraid you couldn't stop him."

Had not the caution been given to watch the urine, baby would doubtless have joined the great majority bearing a certificate "convulsions from unknown cause;" the doctor would have failed to make a diagnosis and he and his patient been none the wiser.

The practice of measuring the urine, and of examining it when it can be obtained, can not be too strongly urged as a routine in scarlatina, as being directly in line of preventive medicine and, at times, of the greatest consequence to all concerned.

ONE OF THE CAUSES OF SUMMER DIARRHŒA IN CHILDREN.

Among the many things that we did not learn before leaving college may be mentioned certain methods of diagnosis in disordered states of the digestive tract in children.

It has been our custom in searching for the cause of diarrhœa in small children to wash the stools in plain water, sometimes with the most sur-

prising results. We recall the case of a robust boy of two years, spending the summer at a country place for the benefit of his health, who was seized with a violent diarrhœa, and who was said to have had, as usual in such cases, nothing whatever to eat that would make such serious mischief, but the young hopeful was the only child and was allowed to roam at will about the place in charge of a young colored nurse, and we were not satisfied with the statement that he had had nothing harmful to eat. A resort to the washing process verified our belief that there was some active cause which was revealed by finding a piece of apple skin, several small gravels, a small piece of bone, and a little coal, all of which had been collected from the gravel walk around the house. Such convincing proof made the parents abandon their diagnosis of "cold on the bowels." A few tablet triturates of calomel, grs. $\frac{1}{10}$ th, were given mainly to please the parents, as it is our candid opinion that the irritation caused by the presence of the gravel, etc., would have disposed of the trouble without assistance.

We have had a like experience in quite a number of cases, and while it is not a very scientific method of determining the cause of trouble, it is at least one readily available in doubtful cases.

THE MICROSCOPE IN DIAGNOSIS.

In the present well advanced state of our knowledge of bacteriology it behooves every physician who wishes to be abreast of the times to use his microscope, and if he is without a good one, to supply the deficiency by purchase from some well known maker, preferably the German, if the high power lenses are to be used, and they are required in work upon blood and most all bacilli. Should the reader not have had experience in the use of the instrument he need not despair; it is doubtless not the first time, being a doctor, that he has felt the want of experience. A working control of the instrument can be learned with a little practice and patience, and the result is most gratifying.

How often are we undecided about the character of our cases of sore throat, whether they are diphtheria or not, and how vexatious and possibly dangerous to all concerned is the necessary delay if inspection alone is depended upon. In the great majority of cases a well made swab from the throat will yield sufficient bacilli to be readily recognized.

In phthisis it is equally useful if the expectoration can be examined and settles many a doubtful diagnosis, and subsequent plan of treatment. The same may be said of malarial infection where a blood examination is of the utmost consequence in questionable cases—and in Bright's disease we are quite dependent upon the instrument for watching the destructive process in the kidneys.

Again, when the moral young man has been so unfortunate as to have worn a hired bathing suit, finds at first a little difficulty in micturition, and later on a good deal of difficulty, he may have made for him a diagnosis of simple urethritis. Of course he will have arrived at that conclusion himself, but it is rather satisfactory to be certain in such cases, and in fact whenever we can. Our difficulties in practice are sufficient, and when we have a means of overcoming them we are negligent, if nothing worse, if we do not avail ourselves of every means to help us.

BOOK REVIEWS.

TYPHOID FEVER AND ITS ABORTIVE TREATMENT. By JOHN ELIOT WOODBRIDGE, M. D. The Cleveland Medical Publishing Company.

The author speaks with such positiveness that he can abort typhoid fever that it is really interesting. The objects for which this book, he says, was issued are: to present to the members of the medical profession so much evidence of the truth of the "startling declaration that typhoid fever can be aborted," as will induce a large number of physicians to give antiseptic medicine a fair and faithful trial in this disease—the most destructive to adolescent life of all of the acute specific infections, a disease which is both preventable and curable, but which is not only not excluded from, but has been practically invited to invade every community, and has hitherto been allowed to pursue its course uninterrupted by any scientific or efficacious treatment; second, to give such explicit directions as will enable all physicians to so intelligently apply the principles of antiseptic medicine to the cure of typhoid fever that they may secure for their patients the least inconvenience and suffering, the shortest duration of illness, and the lowest possible death rate; third, and finally, to impress upon the minds of the members of the medical profession the enormity of the crime which is committed by all communities that pour their excrement laden sewage into our fresh water lakes and rivers, in violation of all sanitary principles of genuine humaneness and even of common decency.

If the assertions found in this book are true, we need no longer fear that disease called typhoid fever. The work is clearly written, and his assertions highly corroborated.

The book contains about 350 pages, of nice size and good binding.

A TREATISE ON APPENDICITIS. By JOHN B. DEEVER, M. D., Surgeon to the German Hospital, Philadelphia. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1896.

For the past few years the importance of appendicitis entitles it to a more thorough and exhaustive study than has usually been heretofore accorded it. No inflammatory affection of the abdominal cavity is capable of such varied symptoms and of so many serious complications, all of which demand the most thorough knowledge for their proper treatment. The writer has presented in this volume such a systematic study of the disease that not only the usual symptoms may be traced from their inception to their termination, but also that the various anomalous conditions so frequently met with may be recognized with equal facility. The author has emphasized the aetiology, symptomatology and special technique in the operative treatment.

The work contains 168 pages. The illustrations are very fine, and are great aids in understanding the technique in this disease.

The first six pages is devoted to a very interesting history of the disease. The section on anatomy is very complete. The most exhaustive chapter is that on treatment. The volume is a most valuable contribution to medical literature.

Life and Letters of Oliver Wendell Holmes. By John T. Morse, Jr. Two vols., 12mo, pp. 358-335. Boston: Houghton, Mifflin & Co. \$4.

The biographer of Dr. Holmes has had an important task, and we

judge from the manner of its performance that it has been a wholly congenial one. Mr. Moore is a nephew of his subject, and his ample literary qualifications are well known. Materials have been placed at his disposal unreservedly. If the reader experiences any disappointment whatever, it is likely to be caused by the comparatively small number of Dr. Holmes' letters which appear in these volumes. This, however, is not chargeable to any shortcomings of the biographer, but rather to the genial Autocrat's aversion of personal correspondence. The illustrations, which include portraits of Dr. Holmes, his father and mother, and various famous members of the Saturday Club, and a view of the old gambrel roofed house in Cambridge, are all interesting and well executed.

THE PRIMARY FACTORS OF ORGANIC EVOLUTION. By E. D. COPE, Ph.D. Chicago: The Open Court Publishing Co. 1896.

The facts presented in this book throw a clear light on the problem of organic evolution, and especially upon the animal kingdom. As the actual lines of descent can be finally demonstrated chiefly from paleontologic research, the writer states that he has drawn a large part of his evidence from this source.

This work contains about five hundred and fifty pages, is well illustrated, clearly printed, and prettily bound.

Literary Notes.

The Review of Reviews for July is a strong political number. The portraits of prominent men of all shades of politics are numerous and interesting, and the editorial comment on the present situation is luminous. The Review is the only monthly which is able to keep fully abreast of all political movements and changes. It is never caught napping. The action of the St. Louis Convention on the 18th of June is already history to the Review of Reviews which appears on the first day of July, indeed, that action had been definitely and accurately predicted in the number of the month previous. The Review has shown such possibilities in political magazine journalism as had not been dreamed of in the philosophies of the magazine editor of the conventional type.

The most thorough and authentic study of William McKinley's character and career that has yet appeared in periodical literature is contributed to the July Review of Reviews by Mr. E. V. Smalley, the well-known journalist, whose intimate knowledge of Republican party politics and long acquaintance with the public men of Ohio render him peculiarly adapted for such a task. Mr. Smalley was himself born and reared on the "Western Reserve," only forty miles from McKinley's Poland home, and he writes with full personal knowledge of the Major's early environment. The article is well illustrated.

"The Declaration of Independence in the Light of Modern Criticism," by Moses Coit Tyler, Professor of History in Cornell University, possesses a well-considered timeliness as the opening article in the North American Review for July. Professor Tyler discusses this venerable and "classic statement of political truths" from many standpoints, but always in a loyal and patriotic spirit.

The complete novel in the July issue of Lippincott's is "A Judicial Error," by Marion Manville Pope. It is a strong story, based on a murder for which the wrong man was convicted and hanged. He has a friend who determines to prove his innocence, and does it. This plot involves some rousing scenes and situations, and the author has not been slow 'o improve her opportunities.

"A Twenty-dollar Bill," by Algernon Tassin, is a pathetic tale of honest among the very poor and in the face of the strongest possible temptation—to save a sister's life. Gillam W. Ford tells about "The Rector's Game-cock," which came to the minister in a singular way, and was thenceforth a bird of peace. Jean Wright narrates briefly "An Old Story"—which is not a familiar or commonplace one at all—of the army.

A Russian, who for obvious reasons withholds his name, writes forcibly on the "Decadence of Modern Russian Literature." His terrible array of facts shows clearly, what might be expected, but has not been much thought of at this distance, the benumbing effect of despotism when vigorously exercised through a censorship of the press.

"Pennsylvania and her Public Men," by Sydney G. Fisher, is another startling article, presenting facts which, though common property, are enough to set one thinking. Republics are often—not always—ungrateful, and in this respect the Keystone State has not as good a record as some of her sisters.

"My Rural Experiences" is one of the last papers which the lamented Prof. Boyesen wrote, and one of the best. He loved his summer home on Long Island, revelled in his peaceful vacations there, and enjoyed to the full his communion with Nature, escaping from the man-made town.

Annie Steger Winston writes with feeling and instructively on "The Southern Ideal." Caroline T. Bansemer tells the story of "Yankee Doodle"—the song.

John Sheridan Zelig supplies a little essay "On Being Fond of One's Thoughts." With the Trade" instances some of the unadvised efforts, and woes of beginners in literature.

The poetry of the number is by Florence Earle Coates, Margaret Gilman George, Jenny Terrill Ruprecht, and Grace F. Pennypacker.

APPLETONS' POPULAR SCIENCE MONTHLY FOR JULY, 1896.—One is always sure of finding in Appletons' Popular Science Monthly much that is helpful in making the most of the life we are now living, both in private and social affairs. The July number opens with a useful lesson on Taxation, contained in the experiences of India, which are set forth by Hon. David A. Wells. The strength and weakness of Our Banking System are shown by Logan G. McPherson. Prof. W. R. Newbold has an article on Suggestion in Therapeutics, or the influence of the mind in aiding the cure of disease. On a related subject is Dr. Douglas Graham's account of Massage in Sprains, Bruises, and Dislocations. A novel System of Polar Explorations is proposed by Robert Stein, the essential feature of which is a permanent station at a place in the arctic regions reached yearly by whalers. The processes of Photographing Electrical Discharges, whether from the clouds or electrical machines, are described by Walter E. Woodbury, with a number of striking pictures. Prof. J. Mark Baldwin discourses on The Genius and his Environment. There is a bright illustrated sketch on the food and feeding habits of birds, by Harriet E. Rich-

ards. Prof. Warren Upham discusses the Causes, Stages, and Time of the Ice Age. Two brief but suggestive articles are County Parks, by Prof. Thomas H. Macbride, and Sociology in Ethical Education, by Byron C. Mathews. The possibility of a new industry on our Pacific coast is shown by Charles S. Pratt in his article on Pearls and Mother-of-Pearl, and there is a Sketch with Portrait of the distinguished Dutch physiologist Jacob Moleschott.

New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

THE ATLANTIC MONTHLY FOR JULY, beginning Volume 78.—The Real Problems of Democracy. A comprehensive statement of Democratic problems, tendencies, and dangers, apropos of Lecky's notable book on "Democracy and Liberty."

A Century's Progress in Science. A review by the most competent living authority of the chapter in human progress that is unparalleled; the century's changes of thought and doctrine.

Arbitration and our Relations with England. A statement of the proper attitude of the two great Anglo-Saxon nations to one another: the possibilities and limitations of arbitration; the function of diplomacy.

The United States and the Anglo-Saxon Future. Why the United States and not England holds the key to the future dominance of the world; new international conditions; the United States the necessary centre of a world confederation.

Speculations of a Story-Teller. A charming "confession" of a novelist—the secret and the aim of the story-teller's art.

Confessions of Public-School Teachers. A group of six professional auto-biographies wherein the writers reveal the forces at work in shaping our public-school life—very suggestive papers indeed.

Letters of D. G. Rossetti. Reminiscences of Browning, and other pleasant literary talk.

Young America in Ferthers. A July study of young birds.

Fiction. The Old Thing. (Another installment) The Country of the Pointed Firs.

Critical Articles. A Group of new historical biographies; Comment on New Books; The Contributors' Club.

Boston and New York: Houghton, Mifflin & Co.

The Fourth of July number of The Youth's Companion is at hand. Exciting adventures and narrow escapes on land and sea—capturing a grizzly in the Rockies, an effort to eclipse all previous explosions in the combination of a balloon with dynamite cartridges, the rival celebrations of two military companies, etc.—make this number of The Companion a veritable cannon-cracker among weekly papers.

The demand for good short stories never end. The difficulty is to meet the demand with nothing but stories of first-class quality. No paper in America does this better than The Youth's Companion. Week after week and year after year it comes out, always with good stories, new in plot and skillful in treatment until one wonders where it gets them all, and how it preserves its infinite variety. The editors of no other publication have a larger number of manuscripts submitted for them to choose from. Over seven thousand were received in the last prize competition.

The result is that The Companion has in every issue several short stories of the kind that makes weariness an impossibility. The paper includes among its regular contributors such writers as Harold Frederic, C. A. Stephens, E. W. Thomson and J. L. Harbour. Its special holiday editions are particularly noteworthy. The Fourth of July number this year contains some remarkable stories of the adventurous Fourth of July order. They teach a good lesson of patriotism in showing how the glorious day is celebrated, even in the most remote parts of the country; and they are interesting because they tell how each section celebrates in its own way.

Those who believe that American writers and artists must go abroad for picturesque local color will find their ideas upset by Julian Ralph's article on Coney Island in Scribner's Magazine for July. Mr. Ralph has always had his eyes open to what is unusual in his native city and its interesting surroundings. Coney Island is unique and peculiarly a New York product. Mr. Ralph calls it "our sun-bath and ice box combined, our extra lung, our private, gigantic fan." He sketches its development from the early seventies down to its present complex and impressive charms—a resort which eight million people have visited in one year. The illustrations by Henry McCarter reveals what a man with a genius for seeing the picturesque finds in such a glaring mixture of the bright and ugly as exists at Coney Island.

General Paralysis in Infants.

Regis has reported two new cases of general paralysis with hereditary syphilis. He believes that facts of this kind show conclusively that hereditary syphilis invariably exists in juvenile general paralysis, but that in order to find it we must hunt for it without allowing ourselves to be stopped by the difficulties that attend such search. Adding these cases to Alzheimer's statistics, it will be seen that of 42 unmistakable, well-authenticated cases of juvenile general paralysis there were 37 with histories of syphilis (hereditary), in 29 of which its existence had been established with certainty, and in eight it was probable. The father of two of the patients presents a cerebral condition bordering upon general paralysis. The question naturally arises if there is not some special condition which allies juvenile general paralysis to hereditary or family forms of organic affections of the nervous system.

Brisler has analyzed 40 cases of general paralysis collected by Ziehen under the age of twenty, and reports a typical case in a girl of thirteen-and-one-half years, in which the only bad hereditary symptom mentioned is insanity in uncles and aunts. He finds that girls are more subject to juvenile general paralysis than are boys.

The American Microscopical Society will hold its nineteenth annual meeting in the new Carnegie Library Building, Pittsburg, Pa., Tuesday, Wednesday, Thursday and Friday, August 18, 19, 20 and 21, 1896. A hearty welcome will be extended to all interested in the microscopical sciences. Applications for membership and titles of papers to be read at the meeting should be addressed to A. Clifford Mercer, M. D., President, Syracuse, N. Y., or to Wm. C. Krauss, M. D., Secretary, 382 Virginia street, Buffalo, N. Y.

Chronic Anterior Poliomyelitis as the Cause of Chronic Progressive Atrophic Paralysis in Diabetes Mellitus.

Nonne (British Medical Journal) mentions seven cases which establish beyond a doubt the existence of chronic anterior poliomyelitis, and adds another in which diabetes had also been present, and which he believes demonstrates the fact that diabetes mellitus may be the cause of chronic degeneration of the motor portion of the cord.

In his patient the atrophy began in the shoulder musculature, involved both arms in toto, and extended to the lower limbs. Death was due to broncho-pneumonia.

Throughout the cord, from the cervical to the lumbar region, there were found degeneration of the cells and fibres of the anterior horns, secondary atrophy of the anterior roots, and moderate non-systemic rarefaction of the fibres in the anterior and lateral columns and median portion of the posterior columns, with slight increase of the neuraglia in these parts. Atrophy was noticed in two nerves and three muscles examined.

Dr. Nonne mentions the many manifestations due to the involvement of the nervous system in this disease, especially the diabetic neuritis, and claims that his is the first case of diabetes mellitus in which the diagnosis of chronic anterior poliomyelitis has been confirmed by autopsy.

The poison of diabetes, like lead and alcohol, may act on the motor cells as well as on the peripheral motor nerve-fibres.

The absence of changes worthy of note in the vessels of the cord does not strengthen the theory of vascular disease as the cause of nervous phenomena in diabetes. The rarefaction of fibres in the white matter may have been due to destruction of tract-cells. Cirrhosis of the pancreas in this case led him to infer that the diabetes may possibly have been due to this cause.

Brazilian and Colombian Ipecacuanha.

Drs. Paul and Cownley (British Medical Journal). The relative medicinal value of the two kinds of ipecacuanha now met with in commerce has acquired greater importance since the pharmacological observation conducted by Dr. Wild have shown that there is a well-marked difference between the effects produced by the two bases, emetine and cephaeline, which are present in these drugs in different relative proportions. Emetine is a good expectorant, but cephaeline does not appear to be equal to it in this respect, while, on the contrary, cephaeline is undoubtedly superior as an emetic. A careful examination of selected samples of Brazilian and Colombian ipecacuanha shows that, although the total amount of alkaloid in the two kinds of ipecacuanha does not differ very materially, the relative proportions of emetine and cephaeline are so different that these drugs cannot be regarded as interchangeable indifferently. In the root of the Brazilian variety there was 72.14 per cent. of emetine and 23.87 per cent. of cephaeline; in the stem 65.6 per cent. of emetine and 32.8 per cent. of cephaeline. In the Colombian variety there was 40.5 per cent. of emetine and 56.8 per cent. of cephaeline.

The Pail and Dry Earth System of Sewage.

At the Wisconsin State Medical Society, on June 4th, 1896, Dr. Ernest C. Helm, of Beloit, Wis., read a paper on the above subject. The author briefly mentioned the several systems only to condemn them as expensive, cumbersome and always needing constant care and intelligent supervision.

If neglected they are even more offensive and dangerous than the abominable privy.

Fine dry earth, preferably a clay loam, or sifted coal ashes, are found to be the least objectionable, though far from being all that is desired. About three pounds per day for such uses is needed, and every passage must at once be covered. Sand and gravel are useless and dangerous.

In any method only urine and feces can be admitted to the receptacle which should be above ground to facilitate easy and rapid removal of contents.

Rev. Henry Moule, of Dorset, England, has invented a number of ingenious closets that are perhaps as good as any. In the pail system, small pails or tubs are used, but are only adapted to villages or cities far removed from agricultural districts. In the Goux system the pail is lined with some absorbent as stable litter, sawdust, or leaves, enough being left above top of pail to be broken down and form a cover for excrement. This is made into artificial manure.

The Board of Health of Toronto, Canada, has issued a comprehensive pamphlet fully covering all the above points. In infectious diseases a red pail, containing a germicide, is used.

The author has been unable to find any village or city, where the "Pail or Dry Earth System" has been found satisfactory, and considers it so inferior to other methods, being even inferior to the dessication method (where a continuous current of air is made to pass over the fecal contents of a long vault), that it is hardly worth the name of system at all.

Continental Methods of Asepsis.

Dr. J. W. S. Parmer (British Medical Journal) thus concludes a very interesting paper on "Aseptic Surgery in Germany" by a recital of the lessons he has learned from the Continental methods of asepsis:

1. If one attempts to be anti- or aseptic, one must observe every small detail in the handling of wounds. Cleansing one's hands and the skin of the patient is useless if a ligature is soiled in being passed from the hands of a nurse to the surgeon. In this country, where blankets are so frequently placed on operating tables, I have several times seen surgeons, in taking a ligature or suture from a nurse, trail the same over the blanket—of course, unintentionally, and without seeing.

2. In boiling water we have a perfect means for rendering instruments, ligatures, and dressings germ free.

3. That antiseptics cannot claim all that has been attributed to them. Dressings impregnated with chemicals left lying about in cupboards are frequently rich in germs. Their preparation often entails soiling, and to be quite trustworthy must be made under strictest supervision, and then placed in some impermeable envelope. Under such conditions these im-

pregnated dressings are useful in military surgery. In hospital surgery they ought to hold a very minor position to the simple steam-sterilized dressings, which are absolutely unirritating.

4. Lastly, that the value of washing out every wound with some lotion has been over-estimated. It is very rarely resorted to in Germany, where results with regard to primary healing are certainly better than I have seen elsewhere.

The Rational Treatment of Typhoid Fever.

Dr. Amour (Ontario Medical Society) criticised many of the various forms of treatment formerly and at present in vogue, and stated that he believed there were only a few drugs that were efficacious in the treatment of the disease. He based his theory of treatment on the relations of the secretion of the alimentary canal. He referred to Ringer's law: The alkaline saliva stimulates the secretion of gastric juice, and acid gastric juice stimulates the alkaline intestinal secretions. These conditions were seriously disturbed in typhoid fever; the mouth became dry, and, on account of saliva being suppressed in a measure, the secretion of gastric juice was diminished, partly through the effect of the fever and partly through the withdrawal of the stimulants of the saliva and the food. The intestinal glands suffered in a similar way, so that those in the lower part of the ileum were irritated and an increased flow of the alkaline secretion of this part of the bowel took place, the diseased part being bathed in an excessively alkaline solution which favored the ulcerating process; and in this alkaline medium the virus of typhoid thrived best. Hence the value of hydrochloric acid and of purgatives. By the use of the latter, the flow of gastric juice, intestinal secretion, and bile, natural antiseptics, was increased. These, bathing the diseased part, would wash away the noxious accumulations. He did not place much reliance on the antiseptic treatment. He condemned the use of turpentine.

Flies Carriers of Germs.

Hoffman (Microscopical Journal) demonstrated the presence of tubercule bacilli in the bodies of flies captured in a room occupied by a consumptive, as far back as 1886. The droppings of the flies were full of the bacilli, which were shown by experiment to be fully virulent.

Six years later Mr. A. Coppen-Jones, of Switzerland, by employing cultures of chromogenic bacteria, proved that infection can be, and actually is, carried, not only in the bodies of flies, but also by their feet. In one experiment, pieces of a culture of the bacilli prodigiosus were mixed in a mortar with some highly tuberculous sputum, in such a way that stained preparations showed these two varieties of microbes to be present in about equal numbers. Flies were allowed to light on the sputum, and, after they had flown about for a time, were permitted to walk across the surface of sterilized potatoes. In forty-eight hours numerous colonies of the bacillus prodigiosus made their appearance.

From this result we can reasonably conclude that flies are a constant source of infection. More especially is this the case in those warm countries where germ growth and decomposition are favored, and where no means whatever are employed to exclude flies from living rooms.

Gelsemium as a Remedial Agent.

Dr. J. W. Roop (Pennsylvania State Medical Society). It is particularly valuable in controlling nervous irritability in periodic fevers of a malarial type. Lately it has attracted attention for neuralgic attacks. The earliest symptoms in large doses are dim vision, drooping eyelids, inability to open the eyes, etc. Antidotes are nitrite of amyl by inhalation or hypodermically. This acts instantaneously as a nerve and arterial stimulant. Also, carbonate of ammonia, brandy, morphia, electricity, till the poison is eliminated. In twenty-six years' experience he had used this drug thousands of times without toxic effects, in tincture or fluid extract, and was convinced that it is a most valuable remedy, beginning to act in half an hour and ceasing in one or two hours. He preferred the tincture as safest. Dose, five drops to adults; to children, in proportion till the physiologic effect is obtained, that is, dim vision, etc. Then omit till these pass off and resume. In facial neuralgia and nervous headaches it has no rival. It may be combined with muriate of ammonia, or with quinia; it corrects ringing of the ears and the headache often produced by quinin. It promotes the action of this drug and in diminished doses. In chronic malaria, gelsemium with liquor potassæ arsenitis is valuable, preventing relapses. The cough of bronchitis is relieved by it. Acute muscular rheumatism is also amenable to it, the patient being put under blankets and three to five drops given every hour till free sweating results. With *nux vomica* it has a remarkable influence on the spinal nerves. Many nervous affections are cured by it in this combination. Added to the bromids, it often cures neuralgias of nervous women and relieves the pain and tormina of the bladder, and in diseases of the rectum. With belladonna or morphia it increases their anodyne powers. In infantile inflammations in quarter or half drop doses it is of great value. In rigid os uteri, etc., in puerperal convulsions and nausea and vomiting of pregnancy, he has found it of value. Where opium is contraindicated, it comes in with good results. As a guide for its use, he laid down the rule that where we find a flushed face, bright eyes and contracted pupils it is the remedy, either alone or combined as indicated.

Treatment of Eczema by Steam.

A Liberson (New York Medical Journal) in two cases, observed that a current of steam of 40° to 50° C. (104° to 122° F.) directed to the affected parts of the skin in eczema removes crusts and scales, occasions increased scaling of the epidermis, favors the absorption of superficial and deeper infiltrations of the skin, diminishes or even entirely stops formation of pus on the surfaces deprived of epidermis, and at the same time produces increased regeneration of tissues where, on account of chronic processes, the conditions for healing are very unfavorable. The apparatus which the author uses consists of a thick copper cylinder containing two or three glasses, the bottom one being heated with an alcohol-lamp. On the top are two openings,—one for pouring in water (closed by means of a screw) and the other for a bent tube. According to the sensibility of the skin, the tube is kept three to five inches from it. The *scance* lasts fifteen to thirty minutes. Instead of pure steam, steam addition of some medicines may also be employed.

Sleeplessness.

It is unfortunate that the physiology of sleep is not better understood. It is even more unfortunate that what we do know about the phenomenon of sleep is not more diffused among the profession. How frequently indeed, do we observe physicians who mistake unconsciousness for sleep, and who seemingly regard the goal of the application of their therapeutical measures, as having been reached, when they have succeeded in rendering a tired, worn out, nervous individual oblivious to his surroundings by placing him in a condition which they call sleep, but which is, simply unconsciousness. An experience of several years in insane hospital practice presented to the writer, in a very strong light, the enormity of this error and its wide prevalence. It was no uncommon sight, to see patients brought to the hospital in an unconscious state, due to the administration of narcotics; opium or morphine being the favorite drug used. One case is worthy of mention here, a male, neurasthenic; harmless, but suffering from the exaggerated mental symptoms, so marked in this disease, was accompanied by his physician to the hospital. The physician stated his reason for coming was, that he considered it important to keep his patient asleep, so that he would not appreciate the humiliation of entering the hospital, and further, that inasmuch as he had not been sleeping well for some time, and that he was sleeping, he considered the opportunity a good one, to let him recuperate. To this end, the physicians was at intervals giving hypodermic injections of morphine, and the poor, worn out, narcotized patient saturated with morphine, and believed to be asleep, was, as best he could, with his worn-out nervous mechanism, fighting for his life, which his respiration, weak pulse and inhibited reflexes, showed was at very low ebb. This case was not an exceptional one; it was, alas, too common an experience. The physician had lost sight of the very essential principle which should govern our therapy in the treatment of sleeplessness, and that is, that sleep has for its object the repair of the wear and tear of vital processes of life, and to insure sleep we must not interfere with these processes, which we do when drugs are given until sedation results.

There is another thing to bear in mind in the consideration of sleeplessness, and that is, that there is a source of irritation somewhere in the economy, which, if relieved, will be followed by sleep. Again, "an axiom" well worth remembering, is, that the more gentle the means employed to induce sleep, the more natural will be the sleep induced, and the more gentle the means employed, the more careful must we be to select the right time for their use. We believe that Dujardin-Beaumetz was right when speaking of the use of drugs in the treatment of sleeplessness; he said: "That for a drug to be hypnotic, it must imitate the natural condition of sleep, by effecting a lowered intra-cranial pressure and that drugs which, though bringing about unconsciousness do not lower cerebral pressure, or which increase it, cannot claim to be hypnotics. Opium and morphine are objectionable on this ground. Drug treatment must put the patient in a position to go to sleep in a natural way, and not *put* him to sleep." Sedatives do this, but narcotics do not.

In the use of sedatives we must be cautious and not use them *ad libitum*. The writer in a paper on "Sedatives in the Treatment of Insanity" (1892, *Hospital Bulletin of Minnesota*), said, "Each case is a 'law unto itself,' and as such requires patient and persistent study ere we commit the folly of

giving a hypnotic, when more simple and efficacious methods would produce satisfactory results." You cannot cure sleeplessness by drug treatment; the drugs simply conserve nervous energy and act as valuable assistants to the building-up process, necessary to cure the sleeplessness. Sedatives act, as before stated, by placing the patient in a position to go to sleep, and nature does the rest.

In our experience we have learned to rely upon the bromides, chloral, cannabis indica and hyoscyamus as sedatives, which, if judiciously used, bring order out of chaos. The bromides lower the sensibility of the brain, and thus promote sleep. The single salts can be used, but in the writer's experience, where a sedative is indicated in sleeplessness, it is better to combine them, and when there is any excitement, add chloral. Cannabis indica is a sedative which is but little used by the general practitioner, and for the reason that it is misunderstood, misrepresented, and as a result never used as it should be. Clouston, Methison and Echeverria have taught us their value. Hyoscyamus is another sedative, the value of which is not appreciated, a drug which is endorsed by Budde, Brush, Krafft-Ebing as a hypnotic. Now, these valuable sedatives, when combined, give us a thoroughly reliable and satisfactory agent, with which to treat sleeplessness, and in the writer's experience no more elegant or reliable preparation is before the profession than that of Bromidia, in which is combined in proper proportion, the bromide of potassium, chloral hydrate, hyoscyamus and cannabis indica. We feel that the profession can always rely upon this combination, and find it especially useful in the treatment of sleeplessness. —*The Medical Fortnightly.*

Summer Diseases in Childhood.

Aside from extreme heat, there is no one factor, perhaps, which contributes so largely to the mortality from these diseases as improper feeding, and as long as there are poverty stricken parents, ignorant mothers, weakly children, hereditary predispositions—in fact as long as there are babies to be reared subject to these conditions—there can be nothing else expected other than a high death rate among these children.

It is an easy matter in almost all the so-called cases of cholera infantum, if their history were carefully inquired into, to find that in nearly every instance the starting point of the trouble could be clearly traced to an attack of acute indigestion.

In such cases the stomach is overtaxed and there is increased irritability of the nervous system, which is already showing signs of exhaustion from the effect of high temperature, humid atmosphere, and other depressing influences of the summer season.

The indications to be met in these cases are to remove the cause and allay irritation. To this end it is best to correct the defective secretion by giving calomel $\frac{1}{10}$ gr., bicarb soda $\frac{1}{2}$ gr., sac. lac. 1 gr., every two hours until the character of the alvine discharges is changed in color or consistency.

When this has been satisfactorily accomplished, it is then necessary to allay irritability and restore normal gastro-intestinal secretions, which is best brought about by the following: Maltopapsin (Tilden's) 1 gr., Bismuth Salicylate (Merk's) 2 grs., given every half hour until vomiting ceases; then the time may be prolonged to two or three hours, as required.

The Contagion of Phthisis in the Hospitals.

The subject of the contagion of tuberculosis in the hospitals has lately been discussed at several meetings of the Paris Academy of Medicine, though no definite conclusions were formulated. (Boston Medical and Surgical Journal). There was general agreement as to the contagiousness of tuberculosis, a subject investigated several years ago by the British Medical Association through a committee of inquiry with results, on the whole, confirmatory of the thesis that pulmonary phthisis may be communicated from man to man, just as veterinary surgeons have long affirmed is the case with cattle, which infect one another by contact.

There was also at these meetings re-affirmation of the danger of dried sputa as the principal, if not only means of contagion, and several speakers emphasized the importance of the ready disinfection and destruction of the products of expectoration as the main point of hygiene to be insisted upon as far as hospitals are concerned. Others thought that complete seclusion and isolation of phthisical patients in the hospitals is imperatively demanded, and appealed to the results obtained in English, Russian and German hospitals where such isolation is carried out. Isolation is also the order of the day in Norway and Switzerland. In France it is practised principally in Besancon, of which Rolland writes: "There is no longer possibility of contagion in the common wards. In the wards assigned to the phthisical, those who expectorate much are separated from the others, and the sputa are well disinfected. The ordinary tuberculous diseases do not become more virulent by reason of contact of patients with each other, owing to these precautions, and patients in the phthisical wards are absolutely removed from all other patients occupying the general wards." Debove claims that the carrying out of these isolating precautions in England has resulted in the lessening of the mortality by tuberculous diseases from 2,410 per million of inhabitants in 1870 to 1,468 in 1893.

A writer in the *Progres Medical* urges an extension to all hospitals of this measure of prophylactic hygiene and points out the real danger of placing in the same ward with phthisical patients and perhaps to near proximity, persons affected with pulmonary affections which may prepare the soil for the tubercular infection.

At one of the meetings of the Academy, Jaccoud presented four facts of the kind. These concerned previously healthy individuals, without known hereditary taint, who, after being first treated in the hospital for some non-tuberculous disease, occupying beds near a consumptive patient, recovered and were discharged. Within a short period all returned to the hospital, suffering from acute phthisis. It might be inferred that these previously robust men had derived the contagion of tuberculosis at the hospital. This conclusion, Jaccoud says, cannot in the present state of our knowledge be affirmed; and he called attention to the likelihood of auto-infection in many cases where traumatism or some disease, as measles or *la grippe*, has awakened to virulence a latent germ.

A workman of excellent physique and good inheritance falls against a wheel and bruises the left side of his chest. The next day a pleurisy of that side sets in, and after a month the patient dies. At the autopsy there are found tuberculous lesions old and new of the left pleura (case reported by Bamberger).

In 1888 Bollinger made the autopsy of several children, not scrofulous, who had died of measles. He found in them no tuberculous lesion, but noted the presence of tubercle bacilli in the lymph glands of the hilum of the lungs and mediastinum. Supposing now that these children had survived their attack of measles and at a later period had become tuberculous after a sojourn in some hospital for some other disease, it might have been thought that they contracted the tuberculosis in the hospital.

In 1890, Dr. A. L. Loomis, of New York, made an experimental study of glandular bacillosis without tubercular lesions, and proved that in many instances (40 per cent.) the bronchial glands of individuals not tuberculous contain active bacilli capable of infecting susceptible animals. Pizzoni's experiments made in 1892 point to the same conclusion. In 1893 Carl Spengler reported that in four children dead from diphtheria he discovered the tubercle bacillus in the bronchial glands in the absence of all tuberculous disease of the organs. In 1894 Straus demonstrates the presence of the tubercle bacillus in the nasal cavities of a healthy man, and proved its virulence by the result of inoculation in animals.

In the face of such facts as these, Jaccoud thinks that we should be cautious how in any given case we affirm the hospital source of a tuberculous infection.

At the same meeting, Terrier stated his conviction of the extreme contagiousness of tuberculosis, and favored greater care in the isolation and seclusion of phthisical patients. Hospital employees in France become tuberculous in considerable proportion and the number of students who contract tuberculosis is large, and the hardest worked and those who spend most time in the hospitals are the most likely to become victims.

Clinical Notes on Ferratin.

Iron, in one form or other, has for ages past, been a prominent factor in the up-building of the anæmic, and the strengthening of the weaker members of our race. It is, beyond doubt, one of our most faithful drugs if, as is the necessity of all drugs, it is properly assimilated. This, of course, is the pre-requisite of all medication, and any preparation, which we have found to be the easiest of assimilation, will have been found to produce the best results.

Regarding iron, I have found Ferratin, "The iron component of the blood," as the most productive of good results, due certainly to its rapid assimilating properties. Its range of usefulness is large, its action prompt and certain. A few cases to illustrate.

Case I. Young lady, age 19, menstruation scanty and irregular, occasionally absent for two months. Periods were also attended with severe pains in region of ovary and in limbs. Eight days before the menses were expected, I was consulted, and gave her tablets of ferratin, 4 grs. each. Sig. One, four times daily, until her sickness was established, or the medicine was all gone. On the twelfth day, after prescribing for her, I saw her again, and was told that menstruation was established on the 9th day of treatment, that the flow was more natural and without pain. She continued its use a week or two, prior to subsequent periods, and after four months reports that she is all right.

Case II. Lady, age 24, one child, four years old. She suffered terribly at each period, which was only controlled by heroic doses of morphine.

Could find no mechanical obstruction, uterus and other organs normal, appetite poor, complexion sallow, anæmia very apparent, and patient subject to frequent attacks of melancholia.

Put her on four grain doses of ferratin, four times a day, to be continued one month, then three times a day for the same period, thus decreasing one tablet per month until at the fourth month she only received one tablet a day. As each succeeding month found her improving; she willingly continued the treatment during this time, and at the end of four months, she possessed a good appetite, a healthy complexion, anæmia had vanished, and her menstrual periods were passed without difficulty.

Case III. Boy, age 9. Suffered from chorea for two years, which was growing worse. He could not keep still, either his hands or his feet would move constantly, and his body would wriggle off a chair in five minutes in spite of his attempts to remain seated. He was quiet when he slept, but a slight noise would awaken him with a jerk. After trying the bromides, chloral, and tr. cimicifuga, I put him on ferratin, 8 grains daily, in divided doses, with the result, of what seems to be a perfect cure, after six weeks of treatment. Several months have elapsed since he has been under treatment, and thus far has not had any return of the malady.

Iron, the king of metals, is also the king of tonics, and reconstructives, if we but administer it in a form that is assimilable. Such is ferratin.

J. D. ALBRIGHT, M. D.

A New Semifluid Product, Oleo-Stearate of Zinc.

By Walter F. Chappell, M. D., Surgeon to the Manhattan Eye, Ear and Throat Hospital.

Medicinal remedies for intranasal, pharyngeal, and laryngeal use should be more or less fluid, non irritating, protective, tenacious, and easy of application. Owing to the necessarily fluid character of spray and douche solutions, these conditions are not fulfilled by them; neither do these solutions remain in contact with mucous surfaces long enough to prove their fullest remedial benefits.

The semifluid oily preparation described by me in the *Annals of Ophthalmology and Otology* for April, 1895, met many of the objections to sprays, but the lard and petroleum products of the base did not prove entirely satisfactory. The taste was unpleasant, and they did not retain the same density at all temperatures.

Mr. W. J. Evans, of the house of McKesson & Robbins, has carried out certain suggestions of mine in the formation of a new compound—oleo-stearate of zinc—which is chemically and pharmaceutically perfect, and is a valuable advance in the pharmacy of semifluid preparations. This stearic compound is prepared by combining a form of stearate of zinc with benzoinated liquid albolene, to make an opaque, semifluid, white, creamlike product. It is neutral to litmus paper, almost tasteless, and entirely non-irritating to any mucous membrane.

My experience with this preparation has been chiefly in the treatment of diseases affecting the linings of the upper respiratory passages, but it may be used as an effective application to the skin or to any mucous surface. In my experience the oleo-stearate of zinc is especially valuable for intranasal applications in cases of diphtheria and scarlet fever,

and in all diseases of the upper air tract occurring in young children. When applied in the nose with a camel's hair brush, it clings for hours to the glandular openings or to any abrasions or spots of ulceration on the mucous membrane. It is readily diffused over the membrane of the nasopharynx, pharynx, and larynx; it may also be applied to the latter with a medicine dropper.

The oleo-stearate of zinc may, of course, be employed alone or in such combinations as the nature of the case indicates. The following combinations have, in the writer's experience, been most valuable:

Oleo Stearate of Zinc with Balsam Peru, in conditions requiring stimulation and healing.

Oleo-Stearate of Zinc with Liquor Plumbi Subacetatis, in acute rhinitis or the coryza accompanying a common cold.

Oleo-Stearate of Zinc with Boric and Carbolic Acids, in copious watery nasal discharges and hyperæmic conditions.

Oleo-Stearate of Zinc with Iodine, in dry and atrophic rhinitis and ozæna.

Oleo Stearate of Zinc with Tannic Acid, in nose-bleed, and catarrhal conditions characterized by yellow discharges.

Oleo-Stearate of Zinc with Camphor and Menthol is cooling, and therefore available in hay fever and coryza.

Oleo Stearate of Zinc with Acetanilid is applied after operations as an antiseptic and protective.

Oleo-Stearate of Zinc with Antipyrin, as a hæmostatic in recurring epistaxis, and as a sedative in irritable conditions of the mucous membrane.

Oleo-Stearate of Zinc with Oleum Pini Pumilionis and Eucalyptol is soothing and curative as an intratracheal injection in chronic bronchitis and asthmatic affections.

Oleo-Stearate of Zinc with Oleum Pini Pumilionis, as a sedative in irritable conditions of the nasal mucous membrane characterized by excessive sneezing.

Oleo-Stearate of Zinc with Orthochlorphenol is valuable in syphilitic ulcerations and ozæna.—*From the New York Medical Journal, May 30, 1896.*

Pineapple Juice as a Digestive Agent.

By H. B. RITTER, M. D., Professor of Obstetrics and Lecturer on Clinical Gynecology, Louisville Medical College.

The juice of that delicious fruit, the pineapple, has long been employed in domestic medicine. First used on account of its pleasantly acid taste and delicious flavor, as a refreshing beverage in convalescence from febrile states, it afterward attracted the attention of the Medical world as a remedy in pharyngeal disorders. Every variety of sore throat, from the simplest tonsillar affection to the most malignant form of diphtheria. Recent experiments with it as a digestant would seem to strengthen our confidence in the juice as a disintegrating agent, and explain its action in the removal of the membranous deposit.

Some time since my attention was called to a preparation incorporating this fruit-juice in the form of a digestive wine, which the manufac-

turers are pleased to call "Zumo-Anana," and I at once proceeded to test its merit. Six obstinate cases of gastric indigestion (one acute and five chronic) were placed on the preparation, and directions given to take a tablespoonful in water after every meal. The result surprised me; five out of six gave positive evidence of improvement after taking one bottle, and expressed themselves as delighted with results. The unimproved case was a long-standing one of enfeebled digestion with cardiac valve-lesion and general edema.

Mrs. M., aged 28, the mother of five children, complained of nausea after eating, and distress in the epigastrium, which at times would become so severe as to compel her to induce vomiting. A long train of nervous symptoms added to her discomfort, and rapid emaciation and insomnia, coupled with hysterical despondency, lent a serious aspect to the case. All the usual remedies were tried without perceptible improvement, and she was almost disheartened. The Zumo seemed to act like a charm. The nausea ceased, the distress disappeared, sleep was obtained, and hope replaced despondency. I have since discovered that the disturbances were due to pregnancy, although at the time this was not suspected, as she was nursing a child of only five months and the symptoms were entirely different from those during previous conceptions. Subsequent trials have led me to believe that the remedy possesses remarkable powers in relieving reflex nausea, especially that occurring in the pregnant state.

Peritonitis.

Intestinal incision and drainage in Acute Peritonitis has been recommended by Mixter (The Hospital) for the intestinal distension which is frequently seen in grave cases of general peritonitis, and which by causing paralysis of the intestine usually leads to a fatal result. In such cases the author believes it is safe to open the coils of intestine at as many points as may be necessary to thoroughly drain them. He recommends that they be drawn out of the wound, held over a basin, incised in from one to four places, and thoroughly emptied, after which they should be quickly washed off with hot saline solution, sewed up, and returned, and the abdominal incision closed. In some cases, particularly those that have had an abdominal incision on the right side. Mixter secures permanent drainage by introducing a tube into the most prominent part of the cæcum and retaining it as long as necessary. Through this tube salts and stimulants may be introduced if the stomach is not retentive.

Peritonitis, according to Cole, is always a symptom demanding surgical consideration, but not necessarily operative interference. He concludes that (1) in localised cases of pelvic origin we should use saline cathartics and hot douches, followed later by such operative treatment (preferably by the vagina) as may be required, (2) in cases originating in the vermiform appendix, early operative interference offers the best chance in a considerable proportion of cases; (3) in circumscribed cases, of whatever origin, where the process has simply resulted in an abscess, it should be dealt with as such; (4) in a general septic peritonitis, of whatever origin, an operation alone gives any hope. Cases of recovery after operation for diffuse peritonitis are recorded by Holmes, Kakels, and Sheild.

Antiseptics for Infant Diarrhœa.

Soltau Fenwick, in communication to the British Medical Journal on the subject of infant diarrhœa, remarks that "during the last three years I have used various medicinal antiseptics in more than 500 cases of digestive disorders in children. . . . The results which have accrued from their use in cases of infantile diarrhœa have been so satisfactory that for more than twelve months I have never had to resort either to astringents or to opium." In chronic diarrhœa due to fermentation he recommends for infants three to four weeks old three grams of resorcin every four hours; large doses appear to be well tolerated, and the drug readily taken by infants. Should the condition be of long standing, with the probable complication of follicular ulceration of the large intestine, antiseptics of the nature of resorcin or calomel, which are chiefly operative on the acid contents of the stomach and duodenum, should be supplemented by antiseptics which are active in the alkaline portions of the intestine, namely, benzol-naphthol, salol, and salicylate of bismuth. In a recent paper by Dauchez the following plan is recommended when the diarrhœa is dependent on follicular ulceration of the large intestine: Large injections of a weak antiseptic solution should be passed into the intestine by means of a long catheter—from one and a-half to two pints once or twice a day. The injection may be made of a solution of hyposulphite of sodium, or of tincture of benzoin and water.

Dauchez contends that the success of this treatment largely depends on the removal of decomposing and irritative food *debris*, and for this purpose care must be taken that the injection reaches far up the large intestine. To obtain this end the right thigh should be raised so as to render the cæcum as dependent as possible, and thus facilitate the flow of the solution by gravity.

In similar cases tannigen has been vaunted almost as a specific. It is a diacetyl derivative of tannin, which undergoes no decomposition in the stomach, and consequently does not interfere either directly or indirectly with gastric digestion. Its value, probably, depends entirely on the astringent action of the nascent tannin in the intestine.

It must, however, be remembered that tannigen is practically useless when the diarrhœa depends chiefly on fermentative action in the stomach. The latter must first be treated by appropriate dieting, and by gastric antiseptics such as resorcin.

To sum up: In the early stages, characterised by gastric fermentation, repeated small doses of calomel ($\frac{1}{4}$ to 1-6th gr.) or resorcin (gr. 4) should be tried. In later stages, in which intestinal fermentation is co-existent, benzol naphthol (3 gr.), salol (gr. 5), salicylate of bismuth (gr. 5), should be given in addition. In the final stage, with follicular ulceration of the large intestine, resort must be had to Dauchez's method by injection, or to small doses of tannigen.

The Atlanta Clinic has recently advanced in several respects. It has increased to twice its former size, and the subscription is one dollar per annum, and it will appear on the 1st instead of the 15th of each month as heretofore. Dr. W. L. Champion has assumed charge of the business department. We wish this Journal continued success.

Maladies of Women-Pregnancy and the Menopause Complications, Cases From Practice.

CASE I.—A young woman, aged 12, nervo-sanguine temperament, engaged the writer to attend her in her first confinement which was expected to take place in about three and one-half months from that time. She was then in a fair condition, but soon contracted the grip, or influenza, causing injection of the eyes, sneezing, headache, pain in the back slight rise in temperature and a troublesome cough resulting from faucial and bronchial irritation; later, a disordered stomach, so that her appetite and digestion were disturbed. She complained of general soreness, especially in the abdominal region, this giving her much annoyance and anxiety. Under appropriate treatment, mainly alkaloidal, she improved, but continued more or less debilitated and weak in the stomach, with anorexia, for which I gave her the usual remedies. Any quick motion of the fœtus also produced nausea. For this digestive trouble I prescribed a bottle of Zumo Anana. This preparation was taken in $\frac{1}{2}$ fluid-ounce doses three times a day, before meals, and before half the bottle had been taken she had improved greatly, and the sleeplessness which was present, was removed; a dose of lactophenin having been given at bed-time to produce the result last named.

CASE II.—A woman aged 48, had not seen her monthly return for several periods, and she being of a neurotic temperament, became an easy subject for such affections as follows; The complex condition of the changed circulation in the bloodvessels, usual in such cases, interfering with the balance of the restorative power and nutrition. These effects were considered and were treated by the family and patient as bilious conditions; great nausea resulted, sometimes vomiting and retching, severe headache and defective sight from brain anemia and general anemia. She complained of great soreness in the abdomen, sore on pressure as though peritonitis of a kind might be present; this soreness had been complained of for several weeks as being constant—always tired, no appetite, always sleepy, slept all night through as from exhaustion. The headache would commence as soon as she got up in the morning, always worse about four o'clock p. m. On several occasions I was sent for on account of the terrible headache occurring in the afternoon and which would continue with unabated fury till she got to sleep at night. The last attack of the kind was attended with a terrible sick stomach and general prostration, coldness from peripheral anemia and extreme soreness in the region of the bowels.

The lady had no uterine disease, but was a case of neurasthenia resulting from over-work, prolonged excitement, etc., etc.

She had had no appetite for weeks. The medicines that had been prescribed for and which did her most good for sick stomach, headache, and soreness in the region of the abdomen were lactophenin for pain, hamameline for the soreness and strychnine arseniate for the nervous depression and continual nausea. The appetite and digestion were finally restored by the aid of the pineapple digestive wine of Zumo-Anana, and this after many attempts at its restoration by the use of the various ordinary wines and liquors in use for such purposes.

Pepsin had been tried without avail, bismuth and its preparation had been used without effect. But with the above named digestive wine and

quassin before meals and the arseniate of strychnine after meals, she regained her appetite for ordinary food after having lived upon malted milk for about four weeks; the malted milk being the only food that her stomach could bear; she loathed the meat extracts, and ordinary milk, likewise all broths and soups. This was one of the most interesting cases of the kind that I have ever before met, and I am glad to say that the patient has at last recovered from a condition of body and mind which tries the souls of physicians who are so unfortunate as to be compelled to battle with them.

W. C. BUCKLEY, M. D.

723 Berks St., Philadelphia, Pa.

The Removal of Carbuncles by Excision.

J. O'Connor (British Medical Journal) has treated in the past three years twelve cases of carbuncle, six on the nape of the neck, two on the buttock, two on the back, one on the perineum, and one on the face. In each instance the treatment adopted was incision, supplemented in four cases by erosion. The following is what he says in reference to the operation:

1. The patient having been placed under ether, a deep incision is made round the whole circumference of the carbuncle, at least half an inch outside the infected area. Luckily carbuncles, as a rule, do not occupy parts where there are any large blood vessels, therefore there can be no excuse for stinting the depth of this incision.

2. With the handle of a scalpel or periosteal elevator the carbuncular mass is undermined, elevated, and removed in the same manner as a tumour of the breast.

3. Sometimes it happens that the disease has extended too deep, and cannot be isolated from the surrounding structures. In such a case I always remove all I can with the knife, then a strong scissors is brought into action, and lastly the operation is finished with a sharp Volkmann's spoon. Not a trace of the disease should be left.

4. In order to contend with any microscopical particles that should have escaped this process of eradication; I swab the whole surface with a solution of zinc chloride, 40 grains to 1 ounce. Of course this is only used in cases that do not admit of clean removal.

5. A large circular wound is generally left; this is finally painted with the following solution: Carbolic acid one part, alcohol one part, methyl violet one part, water ten parts; dusted with iodoform, packed with iodoform gauze, and bandaged.

6. When the granulating wound comes level with the surrounding skin Thiersch's grafts are applied, which considerably hasten the cure.

Needless to say, this operation is not by any means a bloodless one; but with a steady assistant armed with a dozen pressure forceps there is no need of alarm; any vessels that merit it are tied; the general oozing soon ceases with pressure of a sponge soaked in hot water.

Out of the 12 cases, 8 were cleanly excised; the remaining 4 required the scissors, spoon, etc. In not a single instance did the disease recur in the wound; constitutional symptoms, in some cases severe, vanished in twenty-four hours. In fact, it is hard to realize that a patient so deeply in the throes of septicæmia can be restored to his normal state in such a

short space of time. No other method that I have ever tried or heard of equals complete excision in this respect.

International Dermatological Congress.

The third International Congress of Dermatology will meet in London, from August 4th to 8th, of this year. The general program has been published in a recent number of this Journal.

There will be a Museum of drawings, casts, models, naked eye preparations, microscopic specimens, works and atlases pertaining to diseases of the skin. There will also be an exhibition of clinical cases and demonstrations of the same, at 9 A. M. and 2 P. M. of August 5th, 6th and 7th, and at 9 A. M. of August 8th. Any one having anything to contribute to this department, will please address Dr. Jas. Galloway, 21 Queen Anne Street, Cavendish Square, W.

There will be an Exhibition of cultures and microscopical preparations of organisms connected with the skin and its diseases. Any communications in regard to this department, should be addressed to H. C. Plimmer, Esq., Wunderbau, Sydenham, London.

The social side of the Congress will be: 1st. An Informal Reception at the International Hall, Piccadilly Circus, on August 3d, from 9 to 12 P. M. 2d. A Reception by the Lord Mayor and Lady Mayoress, at the Mansion House, on August 5th, from 9 to 11 P. M. 3d. A Dinner to the Foreign Members, at the Hotel Cecil, on August 7th.

It is advised that foreigners should arrive in London not later than Sunday, August 2d, as Monday the 3d inst., is a public holiday. Information in regard to hotels will be furnished on application to George Pernet, Esq., 77 Upper Gloucester Place, London, N. W.

GEORGE THOMAS JACKSON, M. D.,
Foreign Secretary for the U. S.

The Treatment of Mammary Carcinoma.

Dr. Burt (Ontario Medical Society) was pleased to note the strides that had been made in this department of surgery, and that the percentage of cures had been so great and the percentage of recurrences so small. This had been brought about by doing the wide operation. He called attention to the necessity of a correct and early diagnosis of these cases. He was sorry the pathologist was not always to be relied on. In every case in which it was proposed to do the wide operation malignancy should first be diagnosticated. No woman cared to be unnecessarily mutilated, to undergo an operation which in a measure unsexed her. It was pretty well agreed that the infected region should be removed in one piece, for fear of infecting the wound.

I am not in the habit of giving testimonials, and certainly would not do so until I had given the remedy a thorough and satisfactory trial. I have prescribed Cactina Pillets about five years and find them to be a very valuable preparation—much better than the modest claims made for them.

Hockley, Tex.

O. M. BROWN, M. D.

Mosquitoes and Malaria.

We quote the following from Dr. Manson bearing upon the relation between mosquitoes and malaria: "I think I have advanced many cogent reasons for believing that the plasmodium malariae on leaving man, and as a normal step in its history, becomes parasitic in the mosquito, and that in this insect it enters some cell—as any gregarine or coccidium would do—and probably develops into its reproductive sporulating form just as it does in the blood corpuscles of man. What then? How can its spores get out of the mosquito so as to increase and multiply and preserve its species from extinction when in the course of nature the mosquito dies? How, too, does it spread over the land, and how does it get back to man again? Before attempting to answer these questions, I must first describe very briefly a passage in the life of the mosquito. The female mosquito, after she has filled herself with blood—the male insect is not a bloodsucker—seeks out some dark and sheltered spot near stagnant water. At the end of about six days she quits her shelter, and, alighting on the surface of the water, deposits her eggs thereon. She then dies, and as a rule falls into the water beside her eggs. The eggs float about for a time and then in due course each gives birth to a tiny swimming larva. These larvæ, in virtue of a voracious appetite, grow apace, casting their skins several times to admit of growth. Later they pass into the nymph stage, during which, after a time, they float on the surface of the water. Finally, the shell of the nymph cracks along its dorsal surface and a young mosquito emerges. Standing, as on a raft, on the empty pelt the young mosquito floats on the surface of the water while its wings are drying and acquiring rigidity. When this is complete it flies away. The young mosquito larvæ, to satisfy their prodigious appetites, devour everything eatable they come across; and one of the first things they eat if they get the chance is the dead body of their parent, now soft and sodden from decomposition and long immersion. They even devour their own cast-off skins. In examining mosquito larvæ one often comes across specimens whose alimentary canals are stuffed with the scales, fragments of limbs, and other remains of the parental insect. As we have seen that the mosquito larva devours its own and its neighbor's exuviae, we can readily understand how, once gregarines have been introduced into a pool of water, the larval mosquitoes in that particular pool become infected by the parasite. But as the mature mosquito when she quits her nymph husk also contains numerous gregarines, we can also understand how she, too, carries the infection with her, scattering it about the country in her fæces or conveying it to any other pool where she may lay her eggs and afterward die. Her body is then devoured by her progeny or by any other mosquito larvæ that already chance to be in the pool. Along with her body, of course, the larvæ swallow any gregarine germs it may contain if they have not already been picked up by the larvæ when feeding on the mud at the bottom of the pool. Does not this little story of the gregarine indicate the way, or a way, in which that other mosquito sporozoon—the plasmodium malariae—multiplies? Does it not indicate how this parasite, in which man is so much interested, passes from mosquito to larva, from larva to mosquito, in never-ending series? Does it not indicate how the plasmodium disease of mosquitoes spreads from pool to pool and is scattered broadcast about the country, and does it not indicate

how it may get back to man again? We can readily understand how the mosquito-bred plasmodium may be swallowed* by man in water, as so many disease germs are, and we can readily understand how it may be inhaled in dust. Mosquito-haunted pools dry up. The plasmodia in the larvæ and those that have been scattered about in the water, finding themselves stranded by the drought and so placed in a condition unfavorable for development, pass into a resting state, just as they do when by quinine or other means man is rendered temporarily unsuited for their active life. The dried specimen of the pool, blown about by winds and currents of air, is inhaled by man, and so the plasmodium may find its way back again to the host from whom its ancestors had, perhaps, started generations back. I would conjecture that on entering man and on entering the larval mosquito it develops into a flagellated spore similar to the flagellated spore into which it develops in the mosquito's stomach. In this way it would be enabled to penetrate the mucous surfaces and get into the human blood cell. Many mosquitoes die without getting to water; all male mosquitoes die without seeking water. They may die far from water, blown away, as we know mosquitoes are, by high winds. The bodies of such mosquitoes fall in time on the soil and decompose. The parasites they contained pass into the resting stage, and in this form they also may be carried into the air by currents, or be blown about as dust, or be shaken out by man when he disturbs the soil. In this way the plasmodium may find a route back to man again. In this way, too, we may explain the occurrence of those cases of malaria which apparently, though not really, are unconnected with swamp or stagnant water. Such is my view of the life history of the malaria parasite, and the role of the mosquito with regard to it, and of the process by which man becomes infected."

Ear Troubles and Epilepsy.

Dr. Hobby (British Medical Journal) calls attention to the frequency with which persons affected with ear trouble faint, and manifest such peculiarities, which often distinguish the loss of consciousness in these cases from ordinary syncope, as to suggest a relationship to the minor forms of epilepsy. He thinks there must be some physiological reason why syncope should occur so often in ear cases. In ordinary syncope there is usually more or less anticipation, as pallor, sighing, &c., but in the peculiar form mentioned the patient, without warning, slides down in the chair, the eyes roll up, unconsciousness supervenes without pallor, a slight stiffening of the body follows, sometimes there is grating of the teeth, then a gentle sigh, a look of surprise, and the attack is over. Absence of pallor, of dilated pupils, of nausea before and after, presence of contractions, rigidity, and the rapid recovery, make distinction between such an occurrence and ordinary syncope. These phenomena are often observed when the ear is syringed, wiped with cotton, &c., and with little reference to amount of pain suffered.

I have prescribed Peacock's Bromides advantageously in a number of cases of dismenorrhœa, uterine congestion, and difficult dentition in infants and always with the most happy results.

Herbst, Ind.

JAS. B. KERSEY, M. D.

The Status of Operative Procedure as a Remedial Agent for Epilepsy.

Dr. Brill (American Neurological Association) favored the removal of depressed bone where there was evidence of depression, as in these cases he had seen good results. In cases due to pathologic conditions, he took the position that craniotomy with excision of the cerebral cortex was unjustifiable owing to, first, the bad results as far as amelioration is concerned, attending the operation; to our inability as yet to make absolute diagnosis as to the character of the pathologic lesion which occasioned the epilepsy. He cited cases to show that where a positive diagnosis has been made previous to the operation, when the skull was removed, the dura torn back and the brain excised no evidence of cerebral disease or defect was found. He argued further that there was an appreciable risk in the operation even when done with the most careful attention to technique; that fatal cerebritis and meningitis were by no means rare; that death occurred even on the operating table from shock; that we had no right to take even the slightest risk when the chances of amelioration or cure were so problematic unless the civilized world and a legal code endorsed the Spartan doctrine of destroying defective children. With such a purpose in view the thought of operation might possibly be justified. Against indiscriminate surgical interference, he voiced the protest of Lucas, Champonniere and others. As for the operation of craniectomy in epilepsy, he could find no justification whatever, especially when viewed in the light of our ignorance as to the pathology of the disease. He advocated conservatism and demanded that the clinician should hesitate before he ratified surgical measures, as an ameliorating agent in these cases. He regarded the large number of reported cases as a striking result of the clinician's desire to prove his skill in diagnosis by an antimortem operation and concluded by saying that no operation should be recommended unless the diagnostician should satisfy his conscience that the signs of disease were such that there could be no possible doubt as to the absolute presence of a definite pathologic condition, the character and nature of which he had absolutely determined previously.

"What two eminent physicians of world-wide reputation have said regarding the standard preparation, 'Fellows Compound Syrup of Hypophosphites:'

Dr. Milner Fothergill wrote: 'The combination (Fellows' Hypophosphites) is an excellent one—the best yet made to my knowledge. It is a happy thought. It is a good all-round tonic, specially indicated when there is nervous exhaustion. It is readily digestible, and has given much satisfaction in my experience of it.'

Lenox Browne, F. R. C. S., Senior Surgeon to the London Throat and Ear Hospital, wrote: 'Having thus a considerable experience of the preparation, I have much pleasure in advocating its use by my professional brethren, and with a confident expectation that their experience will be equally gratifying with my own.'

Mr. Fellows urgently requests every physician in prescribing his Compound Syrup of Hypophosphites to see that his patients receives the original article to guard against substitution.'

Causes of Subnormal Temperature.

Dr. Janssen sums up the causes of this condition as follows:

1. After the direct withdrawal of heat from the body, as in cases of exposure of unconscious or drunken persons in a very cold atmosphere, or after immersion in very cold water.

2. After the loss of great quantities of fluids from the body, as in severe diarrhœa, enteritis, cholera, or profuse hæmorrhage.

3. In conditions of cachexia, and inanition, such as cancer of various parts of the alimentary canal, severe forms of diabetes, pernicious anæmia; during convalescence from febrile affections, and in many chronic mental diseases.

4. In grave circulatory disturbances, as in cardiac failure.

5. In various diseases of the central nervous system, in tuberculous meningitis, at the onset of cerebral hæmorrhage and embolism, in some cases of brain tumour, and in general paralysis of the insane.

6. After irritation of sensory nerves, as in intestinal strangulation, in renal and gall-stone colic, internal perforation of the intestines, &c., and after surgical operations.

7. In extensive skin affections, such as scleroderma and extensive burns.

8. After fevers, where the temperature may long remain subnormal, or in the course of certain fevers, as in pyæmia.

9. In cases of poisoning by phosphorus, atrophine, morphine, carbolic acid, and in alcoholic intoxication; also in the auto-intoxication of uræmia, and in diabetic coma.

In some healthy persons subnormal temperatures are occasionally observed without any apparent cause.

Deafness.

According to Loutenback this affection is in 98 per cent. due to middle-ear disease, and middle-ear disease is the result of throat and nose affections in more than 95 per cent. of the cases. Avoid throat and nose diseases by care of these organs, as well as of the general bodily health, especially in the use of pure wool underwear and avoidance of wet clothing, and if diseased, have these structures promptly attended to.

If middle-ear disease be present, attend to it at once, thus preventing involvement of the internal ear, and saving time, trouble and discomfort.

Middle-ear disease in the early stage is nearly always curable; if advanced, if not curable, it cannot be relieved.

Deafness from affections of the external ear is curable.

Deafness arising in the internal ear is fortunately very rare, and is the most serious form.

Prof. Edwin Klebs has been elected to the chair of Pathology in Rush Medical College.

This college has recently been recognized by the Examining Board of the Royal College of Physicians and the Royal College of Surgeons of London, England. This recognition entitles its alumni to all the privileges accorded to the graduates of other institutions recognized by that board.

Delirium Tremens.

According to the Nursing Record the use of Hydro-Bromate of Hyoscine in the treatment of patients suffering from delirium tremens has recently been attended with the greatest success; and it is reported that it not only gives immediate relief and quiet sleep, even in the worst and most violent cases, but that its use is followed by a complete distaste for alcoholic stimulants. A contemporary states that a certain patient, "who for two years averaged 25 drinks a day," since taking $\frac{1}{100}$ of a grain of this drug every evening "cannot bear even to look at liquor." This statement, if correct, and it is quite possibly so—seeing that the drug is a combination of two powerful nerve sedatives—means that an invaluable aid in the movement for curing habitual drunkards has been gained. Hitherto, treatment designed to effect this end has been chiefly of a moral nature, and perhaps the employment of medical treatment has been therefore too much neglected. But it is a well-known fact that one drug can cause either intolerance or tolerance of another, and therefore it is reasonable to suppose that one might be found—even if the hydro-bromate is not the one—which would cause a confirmed drunkard to feel an absolute repulsion to alcohol. The worst of it is that there have been so many vaunted cures for alcoholism, and each has, in its turn, been "boomed" by quacks, has failed, and has fallen into disrepute, that most medical men are rather chary of advocating any special drug for the treatment of these patients.

Practical Hints for Vaccination.

1. Satisfy yourself the child is in thoroughly good health; always examine the body and buttocks before vaccinating.
2. Vaccinate only with lancets kept for that special purpose. Disinfect them thoroughly before and after use. The lancet blade, without any handle, is most convenient. Have a separate lancet for each child (they cost about 6d. each, and last a lifetime)
3. Disinfect the arm before vaccinating.
4. Use soft tissue paper, which may be kept cut in packets of a suitable size, about 4 square inches, for washing and drying the arm, lancets, etc. Such paper "napkins" cannot be used more than once; whereas people become so attached to bits of rag that they are loth to part with them. The packets should be sterilized by baking from time to time, and be kept in a well-closed vessel.
5. Use blunt lancets rather than very sharp ones.
6. Have the child's arm completely uncovered.
7. As the evolution of the pock takes place, mainly in the rete Malpighii and upper portion of the papillary bodies, the surface tissue must be removed so as to enable the vaccine virus to be deposited there; it is useless and disadvantageous to go deeper. By making too deep a wound some of the vaccine is deposited where it will not infect (in the deeper layers), and some is swept away by the hemorrhage which is needlessly caused.
8. It is disadvantageous and unnecessary to cause blood to flow.
9. As animal vaccine is so thick and tenacious, it will not penetrate readily into such minute scratches as suffice for the thinner and more

watery human vaccine, therefore a slightly larger raw surface is necessary.

10. The best method is to rub off the surface of the skin by frequently passing the edge of the lancet rapidly over it. The spot should be about this size O. Do not make clean cuts or incisions.

11. Allow a few minutes for absorption, before the child is dressed.

12. Instruct the mother carefully (a few printed rules are a great assistance) to avoid irritating the pock, breaking it, poulticing, applying wet cloths, etc., and as to keeping the pocks scrupulously clean. About the seventh day it is advisable to have the sleeve ripped up to the shoulder, or taken off entirely to prevent rubbing the pock.

13. As the scab is a natural protector for the raw surface below, the mother should be instructed to take every care to avoid knocking it off.

14. Avoid "shields." The dry clean scab is the best protector.

15. Do not be too economical in the quantity of vaccine used.

16. Make at least four insertions well apart.

Gout Due to Lead Poisoning.

M. Luethje publishes (British Med. Journal) a long and exhaustive article on gout due to lead poisoning. Among the conclusions which he arrives at, the following are the most important:

1. There can be no doubt of the close connection between lead poisoning and gout.

2. It is probable that the lead alone, without the influence of any other etiological factor, can produce gout.

3. The lead intoxication has no influence on the excretion of uric acid. The power, therefore, of the lead to produce gout cannot be explained through a uric acid retention and the accumulation thereby of uric acid within the blood. The fact that with lead poisoning an unusual amount of uric acid is found in the blood, is to be explained only by a hyperproduction of the uric acid. In what way the lead produces this change cannot now be explained. Lead apparently has the power to cause a "gouty necrosis."

4. In order that there shall be an outbreak of gout, a long period of intoxication is necessary.

5. The clinical course of lead gout shows several peculiarities different from those of an ordinary gout: (a) The attack occurs, as a rule, in an individual relatively young. (b) Lead gout has a tendency to spread rapidly over many joints of the body. (c) The localization of the joint affection has the peculiar characteristic that frequently joints are attacked which in the ordinary gout are never, or but rarely, affected. (d) The tendency to tophi-formation and deformative changes is, in lead gout, much more marked than in common gout.

6. The prognosis of lead gout is always unfavorable.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page 13, this issue). See remarks on their Arom. Fluid Pepsin also.

Progress of Organotherapy.

Dr. Eshner read a paper with this title before the Phil. Co. Medical Society, June 24th, 1896.

He said the use of thyroid extract must be persistent, and with intermissions, to get the best results. It had given good results in myxedema, cretinism, and obesity, and variable results in psoriasis, lupus, eczema, scleroderma, and other skin diseases. It had been used in tetanus and insanity, especially puerperal. It was contra indicated in acute mania. Thymus extract had been used by mistake for thyroid extract in a case of exophthalmic goiter, with good result. Red bone marrow had been given with good results in anemia and in leucemia with variable results. Bone-marrow with extract of pancreas had been used in malaria; pancreatic extract in diabetes, with improvement in some cases.

Suprarenal extract in Addison's disease, and extract of pituitary body in acromegaly, gave symptomatic improvement. Prostatic extract of oxen had been used for enlarged prostates, with very little result. The extract of ovaries and testicles had been used to stimulate these organs.

Bullet Wounds of the Abdominal Viscera.

Tiffany has recorded in the Journal of American Medical Association, four cases of bullet wounds of the peritoneum and contained viscera; the weapon used was in three instances a pistol, in the fourth a gun. Three recovered, the other dying from peritonitis. In the first case there were five wounds in the small intestine, within the lumen of which the bullet was lying; in spite of this there was no symptom of injury to the abdominal viscera. The bullet was removed, the intestinal wounds closed by continuous Lembert sutures, the abdominal cavity flushed with boiled water, and the incision closed with silk sutures, a drainage tube being left at the lower angle. During the night the patient (who was drunk) took off the bandages and walked about the ward with the wound uncovered; he repeated this proceeding after he had been put back to bed and the wound redressed. Death ensued on the ninth day from peritonitis starting in the region of the drainage tube. In the second case there were eight wounds of the small intestine and four of the mesentery; there was general pain in the abdomen, the walls of which were rigid and tender. The intestinal wounds were stitched with Lembert's sutures and two vessels in the mesentery were tied; the peritoneal cavity, which contained blood and feces, was flushed with boiled water till clean. No drainage tube was used. The temperature fell after the operation to below 95°, and there was an acute attack of dysentery on the twenty-second and two following days, but otherwise convalescence was uninterrupted. The third case, one of gunshot wounds of the spleen and kidney, has already been recorded; in this, as in the second, the bullet was not found. In the fourth case the bullet passed completely through the right lobe of the liver and the stomach, and had also bruised the omentum. It was not seen at the operation, but was passed with the first stool after, showing that it had entered the descending colon. It should be mentioned that in the necropsy on the first case two wounds of the colon were found close together and covered with lymph. In the case under notice the holes in

the stomach were closed with silk Lembert sutures, and those in the liver tamponed with gauze, the ends of which were brought out through the abdominal wound. Through this bile at first escaped, but recovery was eventually complete, the stools regaining their normal colour on the seventeenth day. In all cases food was withheld after the operation with the exception of ice, which in one instance was all that was given for eight days. Purgation by salines was invariably resorted to unless there was reason to suspect an unclosed bowel wound, when opium was substituted. Tiffany's conclusions are that a penetrating wound of the abdominal cavity is not accompanied by symptoms commensurate with the extent of the injury, and that many fatal lesions may be present in the absence of shock or marked symptoms. With regard to treatment, the wound of entrance should be enlarged, and if the missile has entered the abdomen a section is called for, operation being indicated soon after the injury before the peritoneal cavity has become infected or much blood lost. Flushing the peritoneal cavity with hot water or hot normal saline solution is found to be an excellent stimulant to the heart. Finally, the abdominal wound should be closed when practicable without drainage.

Toxicosis of the Nervous System as a Cause of Pulmonary Consumptions.

Dr. Mays (American Neurological Association) says disturbance of the nervous system and especially of the respiratory nerves induces some form of pulmonary disease and frequently pulmonary consumption. That diseases of the pneumogastric nerves leads to these disorders is confirmed by the opinions of Chevan, Holland, Copland, Laycock, Allbutt and Clouston, which are quoted. Besides, clinical proof and post mortem evidence are adduced from cases found in medical literature. Alcohol, syphilis, mercury, lead, typhoid fever, diphtheria, measles, whooping cough, mumps, influenza, cerebro-spinal meningitis, beri-beri, rheumatism, etc., intoxicate the nervous system and become prolific sources of pulmonary mischief. Of all these poisons alcohol is probably most sure to bring about pulmonary diseases through the nervous system, and a number of cases giving post mortem proof of this are cited. Syphilis and most of the other poisons mentioned are treated in the same manner and are shown to have the same effect ultimately in a great many instances. The chronicity or the acuteness of the pulmonary disease which is thus dependent on the nervous system, are governed in a large measure, 1, by the virulency of the poison; 2, by the amount and frequency with which it is introduced; 3, by the persistency of its action, and 4, by the facility or difficulty with which it is excreted by the body. They all vary in this respect. Alcohol is quickly eliminated, but its harmfulness depends on its being taken frequently and continued for a long time. A single infection of syphilis permeates the body and the virus remains for years. Mercury and lead enter the body very gradually, but are excreted very slowly. The poisons of whooping cough, influenza and cerebro-spinal meningitis, having a selective affinity for the pulmonary nerves, are liable to be followed by a more speedy disease of the lungs. This is the case with those of typhoid fever, diphtheria, measles and mumps. Uric acid being a normal constituent of the blood, only becomes harmful when it accumulates persistently in excessive quantities.

The Use of Mustard.

Recently Rowell Park, in the Medical Times of London, called attention to its remarkably efficient powers as an antiseptic or sterilizing agent for the hands of the surgeon and for the skin about the seat of operation. Park's method is to scrub his hands thoroughly with a mixture of green or other soap, corn meal, and mustard flour, using this for about five minutes. After rubbing it thoroughly into all the crevices and creases of the hands and nails by aid of a nail brush, one may be absolutely certain that his hands are sterilized, no matter what he may have been doing previously. Roswell Park states that he has no hesitation in proceeding from a necropsy to the operating room if he thus protects his hands. Used as indicated the mustard leaves no unpleasant sensation, and one may feel that by the time it produces any unpleasant tingling or rubefaction of the skin its essential oil has done its desired work as an antiseptic. Park has discarded all other means of preparing the hands, and in several years' use of mustard in this way, he has never been disappointed, nor had the slightest reason to question its effectiveness. He adds that mustard is an admirable deodorising agent, and will take away from the hands all offensive odour of dead or dying tissue, iodoform, etc.

Auto-Infection.

Dr. Marvel read a paper with this title before the New York State Medical Society, June 23, 1896. He explained the difference between ptomaines and toxins; the one poisonous, the other harmless. The toxins were the result of decomposition within the body. There is constantly going on a building up and breaking down; so long as the two processes are kept equal, the person is in health. Otherwise, disease results from the alkaloidal products. The channels by which the poisons are eliminated are the blood, lymphatics, the cellular tissue, etc. The putrefaction of foods result in a toxin formed by the action of the bacteria on the proteids. This is the principal cause of nearly all diseases. The common carriers are the blood and lymphatic systems. When the poison is in excess of the vital fluids, there is impaired function followed by death unless soon relieved. The poisonous substances are formed by the presence in the body of complex substances capable of combining with acids through the action of fermentative bacteria producing salts corresponding to organic and vegetable bases. All animal excretions are poisonous and are eliminated by the skin, the alimentary canal, the pulmonary mucous membrane and the skin. Acute auto-infection is very dangerous and gives rise to symptoms which are alarming, followed by death in a very short time. We must have free elimination constantly going on, or there will be reabsorption. Somewhere in the animal economy there is an unknown means for transforming toxic into inert matter or life could not continue. We find also that there is a different degree of poison for the same toxic in different individuals and under almost the same circumstances. Excess of food will often load the system with these toxins and we also find different types of these troubles. In acute cases we have a development of gas, tympanites, burning stomach, eructations, etc.; with these, headache, depression, fatigue, dizziness, vertigo, etc. In graver attacks there are convulsions, coma, death. These

symptoms must be differentiated from ordinary impaired digestion by the suddenness of the onset, within six to twenty hours after taking food. When we can obtain free emesis and relaxed bowels there is more possibility of relief. In some instances we have extensive skin eruptions resembling erythema, scarlatina and the like. Sometimes the absence of vomiting will mask the case. In nearly every case it is the result of food ingested which had already begun to decompose. Some of the results of this trouble may be chronic atony of the stomach, dyspepsia, diarrhea, dysentery, stomach cancer or dilated stomach. 1, we have disarrangement of the structural tissues; 2, consequent interference with the nerve energies; 3, impairment of cellular function, inviting abnormal production; 4, and thus favoring fermentation; 5, prolonging digestion, thus aiding putrefaction. Perhaps in the future we may be enabled to observe these actions by means of skiascopy. He believed that numbers of cases had been diagnosed typhoid fever when treated by intestinal antiseptics and elimination had been established, got well in ten days or two or three weeks, and thus were quoted as aborted typhoid fever.

Rachitis and its Relation to Dampness.

Dr. E. M. Johnston, in a study of this subject, comes to the following conclusions: 1. Rachitis is an endemic disease, depending on the degree of the yearly dampness in the respective country. By this is also explained the oscillation of its frequency in connection with the season (increase in winter). 2. Disorders of digestion are most frequently the consequence of the disease. 3. Rachitis is accompanied by changes in all the organs. 4. Disorders in nutrition of the organism and in the development of bones are the consequences of disorders of general metabolism. 5. The disorders of metabolism, however, are occasioned by the retention of the dampness in the tissues of the body. 6. In localities where the yearly average dampness is higher than 80° F. rachitis is, as the author expresses it, a physiological condition. In localities between 80° and 70° F. of dampness it develops only in specially unfavorable conditions of lodging and care of children. In localities, however, with dampness below 70° F. rachitis does not occur.

Medical Longevity.

The average duration of a medical man's life during the sixteenth century was thirty-six years, five months; in the seventeenth century it was forty-five years, eight months; in the eighteenth century forty-nine years, eight months; and in the nineteenth century fifty-six years, seven months. It would appear from these data that—whether the survival be of the fittest or not—the duration of medical life has been increasing in a marvellous manner. Should the same rate be maintained practitioners of medicine may ere long all look forward to centennial honours—by no means a rosy prospect from the point of view of the neophyte who, as it is, finds it sufficiently hard to make good his footing within the densely crowded ranks. According to Dr. Salzman the addition of over twenty years to the average medical lifetime.

Total Extirpation of the Stomach,

The editor of the Medical Times of London says: Langenbuch has contributed three cases, one of which survived. The first case was a woman, aged fifty-eight, who exhibited the classical symptoms of gastric cancer, with a tumor in the left hypogastrium. When the abdomen was opened, the stomach was found to be much contracted, and extensively infiltrated with cancer. Seven-eighths of the stomach was removed, and the pylorus was stitched to the remains of the cardiac orifice, making a cavity about the size of a hen's egg. The operation lasted an hour and a half. In the evening the patient was given a little milk, and on the third day some meat was allowed. She rapidly convalesced, and was well in three weeks. The second case was a man of fifty-six. Nearly the entire stomach was removed, and the pyloric and cardiac ends were stitched together in the parietal wound. On the third day the sutures gave way, and the dressings were soiled by the contents of the stomach. Effort was made to feed the patient by a catheter passed into the duodenum through the stomach opening; this failed, and rectal feeding was resorted to, but the patient died from inanition on the sixth day. On autopsy, peritonitis was found strictly limited to the region where the sutures had given way. The third case, that of a man of sixty two, was one of pyloric cancer. After pylorotomy the line of suture was secured in the parietal wound, and was protected behind with iodoform gauze packing. Unfortunately the patient was affected with bronchitis, and the coughing caused the stitches to give way, so that alimentation could only be accomplished by a catheter introduced into the duodenum, and the patient perished on the twenty-third day of inanition. It will be noticed that the cause of failure in each of the fatal cases due to the difficulty of feeding.

Rupture of the Heart.

A French contemporary, says the British Medical Journal, reports the case of a woman 75 years old, who had been in a lunatic asylum for twelve years, during the last five of which she had become extremely obese. The heart sounds were noticed to be very feeble, and the patient suffered from extreme cold. One morning, when apparently in her ordinary health, she raised herself in bed and suddenly threw up her arms, screamed, and fell back dead. A *post-mortem* examination showed that the heart was extremely fatty, and that there was a tear through the substance of the right auricle, through which a quantity of blood had escaped, filling the pericardium. It is more common for these cases to occur when the heart is affected by fatty degeneration, or when there is some thinning of the muscular wall; and there are a few cases on record in which a rupture has evidently occurred, but the patient recovered, subsequently, perhaps dying from some other complaint. Then it has been found that a scar existed in the heart wall at the site of the old rupture, which Nature had managed to repair by closing the opening with blood, and then inflaming the pericardium so that it became adherent to the outer layer of the heart substance at the site of rupture, thus forming, so to speak, a firm buttress and outer support to the torn tissue. Still rupture of the heart is not only comparatively rare, but it is also, as a rule, almost immediately fatal.

Post-Diphtheritic Paralysis a Month after Serum Treatment.

Filliatre (British Medical Journal) has reported the case of a child, nearly three years old, presenting symptoms of croup, which proved on bacteriologic examination to be diphtheritic. An injection of fifteen c.cm. of antitoxic serum was at once made into the right flank, and forty eight hours later a second injection of ten c.cm. into the left flank. In the course of twelve hours, the false membrane had completely disappeared, the child breathed easier, the pulse was normal, the fever had disappeared, and only the sub maxillary adenopathy remained. The child continued well for more than a month, when it was observed to speak through the nose. A day later, speech was almost unintelligible, and saliva dribbled from the mouth. In the course of several days more, the head could not be held up, the chin falling upon the chest. Deglutition also became difficult. The knee-jerks as well as the pupillary reflexes, were preserved. Sensibility was intact. The muscles, especially enfeebled, were the extensors of the neck, the rotators of the head, excepting the sterno-mastoid, the supra-spinous, and the elevators and abductors of the scapulæ. The facial muscles also were largely affected, as well as the recti abdominis. Under electric treatment, improvement rapidly set in, and soon proceeded to final recovery.

Treatment of Tapeworm.

Dr. Ogilvie (London Lancet) reports a case of a little girl, age seven years, who had undergone treatment many times during three years, but without success. She had been given repeated small doses of about fifteen minims of the liquid extract of male-fern, and although numerous segments of the worm were passed after each course of treatment they reappeared in the stools in two or three months, when the child herself would again ask for "fern," as she felt sick and irritable, and had abdominal discomfort. The child dreaded the administration of the drug as it always made her so ill for some days, but she preferred this to the unpleasant sensations produced by the presence of the parasite.

Ogilvie recommends large doses, one half drachm every hour until two or three doses are given, instead of small doses, fifteen to twenty minims. The small doses produce toxic effects because they remain in the bowel and are to some extent absorbed, while the large doses are sometimes expelled from the bowel within two hours of being taken, frequently before the final dose of castor oil has had time to operate. In this case I was not given time to follow thoroughly the few days of preliminary treatment by means of saline purgatives, and as, unfortunately, the child was especially constipated I had no means of properly gauging the amount of purgative required to evacuate the bowel with certainty. Without having the bowels satisfactorily moved by the evening and early morning doses of sulphate of magnesia and jalap I gave a drachm of the liquid extract at 8 A. M. followed by forty-five minims in an hour. As the castor oil given two hours afterwards failed to operate anemas were freely used and another dose of oil was administered about two o'clock. The entire tapeworm, including the head, was passed between four and five o'clock, together with a considerable quantity of mucus. The child had not suffered from the sickness, faintness, or other toxic effects which she

always experienced after the small doses, but an erythematous rash appeared on the skin of the face and body in the evening, showing that some of the poison had been absorbed. She, however, felt well, ran about all day, and shared in the delight of her mother in having got rid of the enemy. I feel convinced that if I had insisted, as I usually do, on having the bowels freely opened for several days before administering the vermifuge, and if an effectual dose of castor oil had been given afterwards, the rash even would not have appeared. This case, therefore, shows the importance of procuring free evacuation of the bowel both before and after treatment by the vermifuge and, I think, goes far to establish the fact that effectual doses produce no more toxic effects than small inefficient doses, even though administered without the careful preparatory and subsequent measures I advise.

Fallacy of Antitoxin in the Treatment of Diphtheria.

Dr. Elmore Lee (American Medical Association) says: The records of the cases treated in the Willard Parker Hospital of New York City prove that antitoxin is dangerous and even fatal. The statistics of that hospital establish that the further use of antitoxin is unjustifiable. Extreme interest and effort to know the truth has guided the staff of the Willard Parker Hospital. Dr. Joseph E. Winters, of New York, has sought diligently to establish the value of antitoxin, but the clinical experiences have forced him unwillingly to condemn its use. Is it safe to neglect the warning of such an experienced clinician and medical teacher? Professor Lennox Browne, of London, patiently and earnestly sought for clinical reasons to further the interests of antitoxin. His conclusions are emphatic and pronounced against it. Dr. Weeks, of Philadelphia, also deprecates the use of antitoxin, basing the conclusions upon an extensive experience in the Municipal Hospital of that city.

Health department statistics of New York are cited in Chicago to the advantage of antitoxin, and Chicago statistics are published in the interest of antitoxin in New York. Health department methods of collecting information must be taken with allowance for accuracy. Previous to leaving Chicago a culture was made of the tongue of the office boy and the tube left at the city health office. The answer received stated that the case was one of true diphtheria. In fact, the boy was not ill at all. Provisions were immediately made by the department to fumigate and otherwise annoy the family at the boy's home. Is it not easy to be seen that the enthusiasm and overzealous interest of the medical corps in the employ of cities may bring to the notice of the health departments cases similar to the one cited? Such reports go on the records and contribute toward the statistics which are sent broadcast. The statistics very quickly become confused and their power for usefulness is absolutely *nil*. Unquestionably large numbers of cases which have been reported to be diphtheria and cured by an injection of antitoxin have been of the bacteriologic class.

It was recently stated to me, upon good authority, that the sales were falling off rapidly and an early termination of the demand for antitoxin was not far off; also that offers to purchase antitoxin upon most advantageous figures had been declined because of the fear of pecuniary loss. Thus the straws point the way the wind blows.

Death-rate Among Newborn Children in China.

Dr. Clark (Edinburgh Medical Journal) finds that in the Asile de la Ste. Enfance, one of the several refuges for children, there occurred during 1895 deaths to the number of 817 out of 1075 admissions. He is careful to state that by a personal inspection he has satisfied himself that this can be attributed to neither the sanitary condition nor the management of the institution, but that it is largely due to the barbarous treatment to which many infants are subjected soon after birth, treatment including extensive cauterisation over the face and body, and the administration of drastic medicines by the ignorant midwives and native so-called "doctors." He points out that the death-rate in Hong Kong of children under five years of age is no less than 26 per cent. of those living at this age period as compared with 8 per cent. in London, and mentions as a significant fact that the female infant death-rate is practically double that of the male infant death-rate.

Any suggestion that the native midwives and "doctors" should be registered is confronted with the very serious difficulty that both of these classes are mostly composed of entirely untrained persons who live upon the ignorance and superstition of the masses. To register such would be to provide a remedy almost worse than the disease. The Sanitary Board have referred the matter to the Government, with an expression of opinion that early attention is demanded by it. It is to be hoped that some check may be devised capable of limiting the action of the ignorant imposters who have hitherto been allowed to practice without let or hindrance.

Treatment of Typhoid Fever.

Dr. Yemans (Journal of American Medical Association) says: I have been much interested in the discussion of the "Woodbridge" treatment of enteric fever, and I am greatly pleased to see that many realize the necessity for fulfilling what I have long considered the essential requirements in not only this, but most, if not all, intestinal disturbances, viz.: Rid the digestive canal, promptly and thoroughly, of all offending or decomposing matter, together with the products of decomposition, thus preventing their absorption; render the contents of the entire tract aseptic as far as possible, and lastly—this and the first being, to my mind, the prime consideration—inducing decided alkalinity, as it is in acid media that most, nearly all, the obnoxious micro-organisms thrive best. The degree of alkalinity should be positive and sufficient, and as, within reasonable limits, there is no danger of overdoing the matter, large quantities of alkali, preferably bicarbonate of sodium, should be given with sufficient frequency to maintain the condition.

While practicing in San Diego, Cal., I had many cases of enteric fever to treat, not one of which failed to yield promptly to the course of treatment here indicated, barring two, which were moribund as the result of intestinal hemorrhage when I first saw them.

I had recently on my hands a puny infant to treat, whose surroundings were in the highest degree unfavorable, suffering from entero-peritonitis, to which I gave freely sod. bic., 2 drams, and sod. et pot. tart., 1 dram, in milk every two hours. When I first saw the child it was to all

appearances nearly dead; thighs flexed upon the abdomen; too weak to even cry; abdomen distended almost to bursting; temperature 106.5, pulse too rapid and weak to accurately count. I promptly got it under the influence of that most reliable and efficient of all stimulants, nitroglycerin, and then began to administration of alkalies. It began to respond to treatment at once, free evacuations of most offensive material soon taking place, followed by reduction in temperature and tympanites. Ten days later the child had practically recovered. In fact I have found that in all cases of acute intestinal trouble, even when profuse diarrhoea is present, brisk cathartics afford the most prompt and certain relief. With them moderate doses of anodynes may be given, but not to the extent of inhibiting catharsis.

While on this subject permit me to invite attention to the great and decided efficacy of large quantities of alkalies in chronic digestive disorders. Particularly in those disturbances from which the users of tobacco and alcohol suffer, will this be found the case. To many such I have frequently given doses of one to two ounces of bicarbonate of sodium, frequently repeated, not only with great and prompt relief to the induced trouble, but, in not a few instances, with at least a temporary overcoming of the causative trouble as well. As in nearly every case of digestive trouble there is a condition of hyperacidity of the gastric juice, is not the giving of alkalies the rational procedure? In fact is not the "requisite degree of acidity of the gastric juice" one of the numerous "bugbears" in the path toward "rational therapeutics?"

Prognosis of Heart Disease in Children.

Chapman (London Lancet) says: Difficult as it most generally is to forecast the issue of a case of heart disease, the anxious parents expects to be told when and how far the child may recover and, if recovery is impossible, the probable duration of life. It behoves us, therefore, to answer these questions as far as possible. A diagnosis having been made of the physical condition of the heart, what are the data on which to form our prognosis? 1. If the cardiac disease was caused by a single attack of rheumatic fever, how long is it since the attack and what has the health been in the interval? 2. If there have been two or more rheumatic attacks, at what intervals have they occurred? 3. The family history. 4. What is the condition of the patient as regards general nutrition? 5. Is there good compensation, or commencing or even advanced failure? 6. If there is heart failure, is it recent or only a stage further on the downward course? The condition of the heart, lungs, liver, and kidneys will help materially in answering this question. 7. Edema of the ankles.

Accuracy of diagnosis should always be aimed at, and in many cases repeated examinations are required to attain this object. If a long time—say, five or more years—has elapsed since the heart affection began we are able to judge how far the heart and circulation have accommodated themselves to the altered condition and from the way the heart has borne the strain to form some idea how it will bear it in the future. Frequent recurrence of rheumatism at short intervals is always a bad sign. The extent of dilatation will be an index of the healthiness or otherwise of the myocardium and the muscular power by the regularity and strength of the heart's action, and its efficiency as a pump may be gauged by the condi-

tion of the pulse and other signs. Aortic stenosis of moderate extent is the least serious condition; the amount of hypertrophy of the left ventricle will be a guide to its extent. Aortic regurgitation may be so far compensated for as to render its existence but little bar to the enjoyment of life, although patients so affected cannot expect length of days. Anything which provokes dilatation brings the cases a stage nearer the fatal issue, besides which fatal failure of the heart may occur any time.

The Conscientious Surgeon.

The conscientious surgeon looks as carefully for contraindications as for indications for radical operations. He is concerned more for the welfare of his patient than his own selfish interests. A prospective liberal fee has no influence in changing his decision. He makes a careful examination of his patient, the tumor and its environments, before he recommends an operation. He has learned from sad experience that aside from justifiable palliative operations for obstructive malignant affections, imperfect operations have proved as detrimental to his patients as to his reputation. He looks the ground over carefully before he decides to attempt a radical operation. The squeezing out of a fixed carcinomatous uterus between forci-pressure forceps is not likely to prolong the life of the patient or increase the reputation of the surgeon who ignores to such an extent the limits of the art of surgery. The removal of a carcinomatous breast without a thorough clearing out of the axillary space may increase, for the time being, the bank account of the operator, but it will surely prove a detriment to the patient. The partial or complete excision of the rectum for carcinoma complicated by regional infection is an operation attended by great immediate risk to life without a ray of hope of effecting a permanent cure. Such bold and reckless overstepping of the limits of the art of surgery is not calculated to increase the estimation of our profession in the eyes of the public or to receive the sanction of the conscientious, discriminating surgeon.

A New Method of Operating for Hydrocele.

E. Lawrie in the *Lancet* says: The operation for the radical cure of hydrocele should be performed in the following manner. The sac is punctured in the usual way and when about a third or one-half of the fluid has been withdrawn two drachms of a saturated solution of bichloride of mercury in glycerine are injected and mixed with that which remains and allowed to rest in the sac for from half a minute to a minute. The whole of the fluid is then drawn off to the last drop. Very little pain is experienced and unless the patient is nervous and takes chloroform he is able to move about immediately after the operation. For the next few days he must, as a rule, lie about, but need not in any case be confined to bed, and in a week or less he is quite well. Provided the surgeon is careful that his hands and instruments are clean and free from micrococci when the puncture and injection are made they produce a uniform result—i. e., sufficient aseptic inflammation to obliterate the sac and nothing more.

Enlarged Prostate.

Mr. Mansell Moullin (The Hospital) call attention to the fact that some men make use of catheters for years without taking any precautions and do not get cystitis, but others carry into the bladder organisms which abound in the urethra and soon set up this complication. He has operated on or seen in consultation twelve cases of enlarged prostate treated by castration. There were two deaths, but neither could be said to be due to the operation, as one died from heart failure on the ninth day and the other from cerebral hæmorrhage on the fifth day. Two, however, nearly died of a peculiar form of traumatic delirium, which set in a day or two after the castration. Intense depression with delirium were present. Moullin considers the condition to have been simply traumatic delirium, such as sometimes occurs in feeble old people after any operation, or even after the administration of an anæsthetic, and not in any way due to the effect on the nervous system of removal of the testicle, or the absence of any substance formed by it. In two of the cases of Faulds, of Glasgow, it followed unilateral castration. These were cases in which acute mania occurred. A reference to Dr. White's table of 111 cases of castration for prostatic hypertrophy will show how rare such a condition is. In all Moullin's twelve cases but one, the improvement in micturition was definite within a week. The prostate became very considerably reduced in size, and in some the enlargement disappeared so completely that the shaft of the catheter could be felt for its whole length by the finger in the rectum. In some cases the onset of the improvement was very rapid—a few hours sometimes—and this Moullin believes to be due to rapid diminution of the congestion of the gland, as the result of removal of the testes on the nervous mechanism. In all but one case voluntary power of micturition was regained, and the residual urine fell below two ounces, cystitis disappeared, and ammoniacal urine became normal in reaction, while, in some cases, a free discharge of deposits of phosphates from the interior of the bladders occurred, often in masses of considerable size, so that pain in the urethra was experienced during their passage.

A case where marked atrophy of half of a greatly enlarged prostate followed unilateral castration occurred in the practice of Manning, of Salisbury, and is referred to by Moullin. All the patient's urinary symptoms ceased. A case is recorded by Moullin where great enlargement of the middle lobe of the prostate occurred in a man in whom one testicle had completely atrophied in early life from injury to the cord. The valvular nature of the obstruction was very marked. The diagnosis was confirmed by perineal section, when a pedunculated median outgrowth nearly the size of a pigeon's egg was discovered hanging in the orifice of the bladder, and acting like a ball-valve. In cases of marked enlargement of the lateral lobes Moullin thinks unilateral castration might always be tried, for if the removal of one testicle did not prove sufficient the other could then be removed. Rovsing records a case of castration for prostatic hypertrophy in a man aged 85, who although for eleven years he had not passed urine except by catheter, recovered the power of voluntary micturition, so that he was able to make water with normal frequency, and a very slight amount of residual urine remained. The result was quite unexpected, and the operation was only done to facilitate the introduction of the catheter. The case shows that over-distension, dilatation,

and muscular atrophy is not always present to a degree beyond recovery in such cases. A somewhat similar case is recorded by Albanan, but the time during which the patient was unable to pass urine except by catheter was only six months. The power of voluntary micturition was completely recovered and very little residual urine remained. Another case of prostatic hypertrophy is recorded by Mr. Brownfield, in which retention occurred, and as no instrument could be passed the bladder had to be drained above the pubes. The power of voluntary micturition did not return, and the testes were removed. The result was very good, inasmuch as he regained the power of micturition and the prostate very greatly atrophied, so that now he has no difficulty in passing water, nor has he to do so with undue frequency. The amount of residual urine, if any, is not mentioned. There are now a large number of successful cases of castration for prostatic obstruction recorded, but very few unsuccessful ones. The prostate from an unsuccessful case was shown by Mr. Davies-Colley at the Pathological Society. The testes were removed from a man aged seventy-three, eight months before death. Although he was able to pass water more freely and had to do so less frequently at night, no atrophy of the prostate was observed.

Division of the vas deference instead of castration in these cases of prostatic hypertrophy is recommended by Reginald Harrison. He suggests that, at any rate, it might be tried before resorting to castration. Mr. Harrison makes a small incision in the scrotum over the cord, isolates the vas, dissects it from the rest of the cord, and draws out a loop with a blunt hook, which he proceeds to ligature with silk and then removes. It is, he says, a very slight operation indeed, but we must not forget that castration, even when bilateral, is a very rapid operation unattended by any shock. No doubt however, cocaine rather than general anæsthesia could more readily be employed in the former. He records two cases treated by excision of the vas. In one, phosphatic concretions were removed from the bladder at the same time that a portion of one vas was excised, and hence, although there was improvement in the condition of micturition, we can hardly put it down altogether to division of the vas. The testis and prostate are, however, said both to be undergoing atrophy, and the urethra to be diminished in length. In the other case, the details are not sufficiently given to allow us to judge of the effect of the operation. The excision was unilateral. Mansell Moullin, in a paper already referred to, mentions several cases of excision of portions of the vas for enlarged prostate. He refers to Tilden Brown's case of ligature of both vasa deferentia under cocaine, in which decided benefit resulted, and to Guyon's two cases, in which, without atrophy of the testes, the prostate diminished somewhat in size, and the condition of the patients was improved. Isnardi's results were more striking. Very marked atrophy of the prostate followed bilateral castration in one case, and nocturnal micturition became much less frequent; in the other—a case of unilateral castration—one testicle and one side of the prostate atrophied. Rontier records three cases of resection of a portion of the vas for prostatic hypertrophy, in which the results are said to be as good as after castration. He excises about an inch, after double ligature. The method, he believes, will be effectual when the prostate is soft and elastic, not when it is firm and indurated. Simple constriction of the vas by a ligature is, he believes, likely to be followed by reunion.

Intellectual Work and Longevity.

Dr. Walsh, of Philadelphia, contributes a very interesting article with this title to the July issue of the *Annals of Hygiene*. He says:

When scientific men, for instance, are taken off between their 50th and 60th year, the explanation at once suggests itself that it was devotion to scientific work that brought on their early demise.

"Not work but worry that kills," some one has well said, in contradiction to this impression, and the necrological list for the last year or two of men eminent in scientific medical circles forms an interesting commentary on the question at issue.

Louis Florentin Calmeil, M. D., the distinguished French specialist in psychological medicine, died March 11, 1895, at the ripe age of 97. For seventy-five years he has been doing work in medicine and the allied sciences that has kept his name prominently before his contemporaries at least in France.

Baron Felix Hippolyte Larrey, the distinguished French military surgeon, after whom is named the amputation of election at the shoulder, died October 7, 1895, at the age of 87. He had gone through the exhausting labors of hospital service in the Crimea and the Franco-Prussian war, had served a campaign in Algiers, and had lived through the troublous times of 1848 and 1871 in France, and yet was hearty to the last.

Alphonse Guerin, another distinguished French surgeon, was 78 when he died last year.

The worry and sense of responsibility, almost necessarily incidental to their work, does not seem to shorten the lives of surgeons, for three distinguished German surgeons, one English, and one Scandinavian all died last year at advanced ages.

Wilhelm Meyer, the discoverer of adenoid vegetations in the pharynx, died at Copenhagen in June, at the age of 81.

Franz von Reid, at Jena, also died in June, aged 85. Many an American student of surgery abroad of some ten or fifteen years ago, remembers cordially the kindly old professor.

Adolphe von Bardeleben, the professor of surgery at the University of Berling, died September 24, aged 76.

Karl Thiersch, to whom the world owes so much for his improvements in the technique of skin-grafting, died April 28, in Leipsic, where he had been so long professor of surgery, at the age of 73.

Nor do men who devote themselves continuously to scientific investigation along certain lines in medicine seem to pay for fame in shortness of life.

Karl Ludwig, the distinguished professor of physiology at Leipsic since 1865, and for ten years before that in Vienna, and whose whole life has been a series of the most patient, painstaking, and laborious investigations (we may add also the most successful), died April 26, aged 79.

Professor Felix Hoppe Seyler, who died August 12, at the age of 70, had been, for many years, the most distinguished investigator in physiological chemistry alive, and many a student has gone to the University of Strasburg because of the fame of his name.

When Huxley died, June 29, he was past 70, and his had been a life

typically full of patient, arduous investigation, solid, rational, scientific teaching, and brilliant, if not always orthodox, and original writing.

Pasteur was 73, and worked on till the end. From the time in the early fifties, when drunk with the wine of the joy of discovery, he staggered up against a fellow-student in the Rue d'Ulm with the words, "*Je viens de faire une grande decouverte*" (I have just made a great discovery); he was coming from his laboratory where he had just demonstrated the right and left polarizing properties of the two varieties of tartaric acid crystals, up to the day almost of his death, few lives have been filled with more persistent or more arduous work. What a glorious catalogue it makes, studies in wine, vinegar, parasites of silkworms, beer, chicken cholera, anthrax rabies. Any one of them seemingly a life work, yet each taken up in succession, the problems in it solved, and then on to the next.

He lived longer than most men, beyond the span assigned by the Psalmist, and would probably have eaten his heart out in morbid impatience if he had been compelled to spend time in idle leisure.

Our own Dr. Oliver Wendell Holmes is a type of an extremely busy man, accomplishing the supposed impossible, succeeding at literature and in the most exacting of the professions, and yet living to be 85.

We would be tempted to conclude after a list like that of the deaths in one year that the ideal state of life for those desired longevity was that of a successful surgeon or scientific investigator. The conclusion would have much more truth in it than the prevailing impression as to the brevity of their lives. It is more than probable that, given a certain amount of vital energy, its conservation will be best studied by orderly, regular, and constant employment at some work that is at once absorbing in itself and satisfactory in its results. Work of itself, when not excessive, is a tonic and stimulant rather than a depressant of vital energy. Intellectual work, instead of being incompatible with the full cycle of allotted life to the organism, is rather an additional factor in securing the completeness of life by rounding out, developing, and satisfying the higher faculties.

Modes of Heredity.

Dr. Buckmaster says: The evidence that bacteria may be transferred from parent to offspring seems incontestable, and the routes by which this is possible appear to be two, viz.: by a direct bacterial invasion of the essential reproductive cells, or by the egg cell or the embryo receiving micro-organisms from the female, in which case the blood-stream is the channel of infection. Bacterial infection then may be either germinative or placental, and in mammals the latter mode is not infrequently observed. The observations of Pasteur in regard to pebrine, a disease of silkworms, are well known. They showed that in this malady definite sporocyst forms were transmitted from the imago, or perfect insect, by way of the egg cell, and that the larva was directly infected in this manner. Gartner also has absolutely demonstrated the fact that ova may contain pathogenic organisms. Infection from the male, however, stands on rather a different footing, and both on theoretical and experimental grounds it may be considered "that a germinative infection of the ovum never occurs by the conveyance of micro-organisms in the male reproductive cells."

Duration of Typhoid Fever Under Treatment of Baths and Subcutaneous Injections of Stimulating Substances.

S. Affanasiew, (Times and Register) from observations in eight authenticated cases, comes to the conclusion that during the state of continuous fever hot half baths and pouring over with cold water, increases considerably the normal number of the red blood corpuscles, in consequence of which an augmented filtration of plasma, in the lymphatic system. In addition, owing to diapedesis, the number of leucocytes are diminished in the blood. During the lytic fall of temperature, owing to the increase in the flow of lymph in the blood vessels, results a diminution in the number of the red blood corpuscles, and an overwhelming increase in the leucocytes. These, under the influence of the attracted bacteria-protein, newly formed in the lymphatic glands, disseminate in great quantities through the lymphatic system. The bacterial product causing the termic excitant is destroyed by the cells of the lymphatic glands, as well and more so, by the liver.

The quantity of urea in the urine of a typhoid, treated with hydrotherapeutic, may increase in the first days; later owing to an increased filtration of blood plasma in the lymphatics, it is diminished.

With subcutaneous injections of alcoholic solution of Fuchsin aside from bath therapy, the fall of temperature is greater in the first days than the bath treatment alone. At the point of injection, however, develops an infiltration, to which the bacteria may find a suitable soil for growth, for when the injection is made in the first days of the disease, the temperature rises again and protracts the lysis. Some time after, at the place of injection, an abscess forms, which contains staphylococcus, when injected with Formalin; while with Fuchsin typhoid bacilli only can be isolated. After Fuchsin injection aside from strong coloration of urine, author noticed enlargement of the spleen, albumen and bacilli typhoid in the urine, and believes that a greater dissemination of the bacilli is going on.

The bathing therapy shortens the duration of the disease, when it is instituted in the second week, as the author demonstrated by his reported cases. When complicated with pulmonary disease, the effects of the baths begin on the sixth or seventh day after instituting them.

Syphilis Through Flea Bite.

Hutchinson has observed a primary lesion of syphilis due to a flea bite. We take the following from the Med. News:

An elderly member of the profession presented himself, covered with an evidently syphilitic eruption, which rapidly disappeared under the use of mercury. The only interest about the case was the question as to how the disease had been acquired. The doctor was evidently anxious to give all the information in his power, but was positive that he had never been exposed to any sexual risk, and, as he had retired from practice, no possibility of infection in that manner existed. He willingly stripped, and a careful examination of his entire surface revealed no trace of lesion whatever on the genitals or at any point, except a dusky spot on the leg, which looked like the remains of a boil. This the doctor stated had been due to a small sore, the dates of the appearance and duration of which

were found to fit exactly with those of a primary lesion. There had also been some enlargement of the femoral glands. He had never thought of the sore in this connection, but remembered most distinctly that it followed a flea bite in an omnibus, and had been caused (he supposed) by his scratching the place, though he could not understand why it lasted so long. Mr. Hutchinson concludes that all the evidence tends to show that the disease had probably been communicated from the blood of an infected person through the bite of the insect. It thus appears that even the proverbially trivial flea bite may prove a serious injury at times.

The Precedent Causes of Tuberculosis.

In a recent paper, having the above title, read before the Atlanta meeting of the American Medical Association, Dr. J. Wellington Byers set forth the view that the precedent causes of tuberculosis was inflammatory foci in the lung tissue as the result of previous disease. That the predisposing factor was lung tissue containing areas of inflammatory foci, and thereby became susceptible to the inroads of the bacilli. He says: "It has been established that tubercular changes are invariably secondary to inflammatory reactions, and that infection of the human organism by the bacilli does not occur in the absence of these reactions. These precedent causes consisting of changes in the integrity of the tissues and cells, are local and general, acquired and hereditary. Before the bacilli can enter and flourish there must exist certain favorable conditions in the soil. The fact that it is not always possible to point out the precise location or seat of these vulnerable foci in no way invalidates the correctness of this statement; they must always be present. Experiment, experience and analogy all demonstrate that tuberculosis is never primary but secondary in time and pathologic importance. In the normal condition of the tissues no foci exist and the bacilli entering through the respiratory channels are removed with the expectoration or destroyed by the phagocytes. The system is in this way kept immune. If, however, the pulmonary tissue contain lesions, or foci, the effect of previous inflammatory disease, such as tracheitis, bronchitis or broncho-pneumonia, or foci such as are produced by foreign bodies incident to the occupations of stonecutters, cutlery works and the like, they constitute vulnerable points for the implantation of the bacilli, and are liable to invite tuberculosis. It is almost certain that the presence or absence of these points in the lungs constitute the real basis for the difference of susceptibility manifested at different periods. Croupous pneumonia is rarely followed by tuberculosis, though furnishing the gravest changes in the lungs. The reason for this is that the exudation in the alveoli consists largely of fibrin and leucocytes, which quickly break down and is soon reabsorbed, and the bacilli find no foci to infect. In bronchitis and catarrhal pneumonia the absorption is much slower, the products of inflammation last longer and the bacilli have the favorable conditions present for a longer time and hence, we find tuberculosis a frequent result. It is reasonable to conclude that these products of inflammation must constitute the controlling factors and operate in the manner stated. Niemeyer taught that tubercular changes were always originated in previous inflammatory conditions, and while he did not clearly interpret the meaning of them, he chronicled the fact which we are

now able to understand. His views were abandoned only for a time, and we are again realizing their importance and truth.

The Anatomy of Rape.

In an interesting article on the Anatomy of Rape, which appeared in the University Medical Magazine by Dr. W. Constantine Goodell, the following is a brief summary:

1. That complete penetration, with the ejaculation of semen, is not necessary alone to constitute rape, but that merely partial penetration of the male organ, between the lips of the vulvar orifice, with or without ejaculation, is sufficient.

2. That defloration of a very young virgin, even supposing that force was not used, should show evidences of rape, from the very disproportion in size between the penis and the vagina.

3. That the hymen is of the greatest value in determining whether coitus has taken place or not, notwithstanding the unanimous opinion of the older writers to the contrary:

4. That there is a line of demarcation, formed by the edge of the genital mucous membrane, *within* which, impinging of the male organ, with or without the ejaculation of semen, would as surely constitute rape as though complete penetration had occurred.

5. The great difficulty and often absolute impossibility of determining whether rape has been committed, when only partial penetration has been secured and ejaculation has not taken place.

6. The inability to successfully differentiate between marks of violence due to the penis and abrasions from attrition caused by walking, or some form of traumatism.

Contagion in School Books.

R. W. Strong (Annals of Hygiene, July, 1896,) says: Every body should be protected from diseases so far as possible, and those who are endeavoring to accomplish this purpose should be given great credit therefor.

The Legislature of Iowa, at its last session, adopted a law which, if followed, will undoubtedly prove disastrous to many school children in the State. It provided that school boards may buy school books at wholesale and furnish them free of cost to the scholars, said books to be left at the school house and used from generation to generation until worn out.

State Superintendent Sabin favors the measure and says: "It is believed that if districts will take action in accordance with the spirit of this provision, the percentage of attendance at school may be materially increased, and the usefulness of our schools to all the children greatly enhanced."

I believe it is a dangerous measure. In most schools there are children who have various diseases, and it does not seem just or proper that these should handle books and then pass them to healthy children.

To the tax-payers the law will cheapen the price of books, but economy should not prevail in such a case, where the lives of so many children are placed in jeopardy.

The Surgical Treatment of Focal Epilepsy; a Critical Analysis of the Result in Nineteen Cases.

Drs. B. Sachs and A. G. Gerster, (Medical Record). For the last six years the authors have attempted to study in a thoroughly unbiassed fashion the results of the various surgical procedures for the cure or relief of partial epilepsies. They include not only cases due to traumatic injury, but those associated with infantile cerebral palsies or some other acute cerebral condition. Their list of cases does not, however, include those in which the epilepsy is due to tumor. Before detailing their own cases the authors lay special stress upon the unsatisfactory results to be gained by a mere statistical inquiry of the cases reported in literature. The majority of these are reported either too early, or, if reported, the cases are not properly analyzed. It is their opinion that the results after operative procedures for the cure of epilepsy should not be considered unless at least a period of one year has elapsed since the time of the operation. But they also state that it is not well to exclude all cases in which the attacks return soon after the operation, for in some of these decided improvements sets in later on. A number of authors have condemned every surgical procedure without in the least attempting to account for the failure to cure or to improve the patient. Thus the mere fact of an addiction to alcohol is of itself sufficient to explain the failure to cure epilepsy by operative procedure. The epilepsy which is developed after a traumatic injury or in association with infantile cerebral palsies it evidently due to secondary degeneration of the association fibres in the hemisphere, for this degeneration originates from the focus of diseased tissue, and the epilepsy is generally developed in the course of a year or two. In this same period of time the epilepsy often appears after the initial injury. Horsley's proposition to excise the diseased tissue and thus prevent the epilepsy is considered to be based upon sound physiological principles, but in practice the results have not been so satisfactory as was expected, and the authors attribute this chiefly to the fact that after an epilepsy has lasted for a number of years and after second degeneration has been fully established, the excision of the original focus of disease cannot be expected to do good. It is important therefore, if possible, to prevent the formation of secondary degeneration in the hemisphere by excision of the diseased tissues, or to prevent epilepsy by early surgical procedures in the case of depression of the skull and other cranial injuries. The authors' nineteen cases have been minutely tabulated with reference to the origin of the trouble, the interval elapsing between the traumatic injury or beginning of the epilepsy and the operation. The analysis of the nineteen cases shows that three were positively cured, two greatly improved, three somewhat improved, while in eleven cases there was absolutely no improvement. A study of all the cases shows that those in which there has been improvement the operation was done within a period of two years after the traumatic injury or the beginning of the disease. The same is true of those cases that were greatly improved but not cured, the failure to cure in these cases being ascribed to other causes, such as alcoholism or want of proper care after operation. The authors' views and experiences are summed up in the following conclusions:

1. The surgical interference is advisable in those cases of partial epilepsy in which not more than one or at the utmost two years have

elapsed since the traumatic injury or beginning of the disease which has given rise to the convulsive seizures.

2. In cases of depression or rather injury of the skull surgical interference is warranted even though a number of years have elapsed, but the prospect of recovery is brighter the shorter the period of time since the injury.

3. Simple trephining may prove sufficient for a number of cases, and particularly in those cases in which there is an injury to the skull, or in which a cystic condition is the main cause of the epilepsy.

4. Excision of cortical tissue is advisable if epilepsy has lasted but a short time, and if the symptoms point to a strictly circumscribed focus of disease.

5. Since such cortical lesions are often of a microscopical character, excision should be practised even if the tissue appears to be perfectly normal at the time of operation, but the greatest care should be exercised in order to make sure that the proper area is removed.

6. Surgical interference for the cure of epilepsy associated with infantile cerebral palsies may be attempted, particularly if too long an interval has not elapsed since the beginning of the palsy.

7. In cases of epilepsy of long standing in which there is in all probability a widespread degeneration of the associated fibres, every surgical procedure is absolutely useless.

The Value of Exercise.

Dr. S. Weir Mitchell, in his excellent little work, shows conclusively how greatly exercise influences bodily change, and says: "Above all, educational wants are limited in kind and degree, and the physical man, woman, and child are what the growing state most needs. This is because nature must have a good foundation to start with, or man's mental, moral, spiritual, physical, and social being will be as naught. If you give nature but half a chance and apply exercise judiciously to her needs, she will with little trouble and without detriment so adjust her springs of action that a most healthful physique will follow. On the other hand, if you apply exercise wrongly to nature, her laws will remain the same, and, instead of being able to change her laws, one will find that the laws change the person who tries to take exercise by burning the candle at both ends, and trouble will positively ensue which will leave the body weakened forever."

"One of the Certainties of Medicine."

Belcher Hyde, M. D., of Brooklyn, N. Y., writes: "Antikamnia is an American product, and conspicuous on this account and because of the immense popularity which it has achieved. The literature is voluminous, and clinical reports from prominent medical men with society proceedings and editorial references, attest its value in actual practice in an endless variety of diseases and symptomatic affections. The fact stands incontrovertible that antikamnia has proven an excellent and reliable remedy, and when a physician is satisfied with the effects achieved he usually holds fast to the product. Antikamnia is one of the certainties of medicine. This is the secret and mainspring of its success."

Grafting of Bone.

Spencer says bone is like skin, hair, horns, and teeth, can under certain conditions be transplanted. Bone may be made to form where it otherwise would not by grafting living periosteum and bone. One certain plan of ensuring a formation of bone which will not afterwards undergo absorption is by raising a flap of periosteum with a superficial layer of bone attached by means of a chisel. Such a flap raised from the forehead including the outer table of the skull may be turned down so as to make a satisfactory bridge to the nose, but this may not be the case if only periosteum be turned down. Similar grafts of living bone have been made by taking chips of periosteum and bone from an animal just killed and planting them where a formation of bone is desired. In some cases the actual cells of the transplanted bone do not take part in the new bone formation, but osteoblasts come in from the outside. In such cases the transplanted bone merely acts as a scaffold. A great number of experiments have been made on the skull, but the skull is peculiar in that the pericranium and dura mater take little part in the bone formation. Whether a disc removed by a trephine be replaced in the trephine hole intact, or whether it be cut in small pieces, or whether it be kept for some time in an antiseptic solution before being replaced, in any case the fact of replacing will allow of the gap being filled by bone, a process which would otherwise take place but incompletely. But the formation of new bone appears to be brought about wholly by cells which are derived from the bone around. These arise chiefly by active multiplication of cells in the marrow of the diploe and but to a small extent, if at all, in the pericranium and dura mater. The bone corpuscles of the actual graft degenerate, as seen by their losing the property of staining with logwood. The graft to the naked eye certainly becomes vascularised, but on microscopical examination new bone is seen to be laid down upon the old septa part, which act like the calcified trabeculae in normal ossification and slowly disappear. Whilst both co-exist the new bone layers are distinguished from the old septa by the staining of the cells in the new, whilst in the old septa only blank spaces are left by the early disappearance of the bone corpuscles. It is a kind of metaplasia or substitution for dead bone. But the graft is of service not only as a scaffold, but also as affording a supply of lime salts. Many pieces of bone have been put into strong antiseptic solutions or into alcohol before being used, and yet have determined the formation of bone when transplanted, likewise dried bone or ivory chips have been employed, and finally plaster-of-Paris has been used as a filling for cavities in the bone. In all these cases the actual supply of the lime salts appears to be of advantage. But the transplantation of living periosteum and bone, as well as the insertion of dead bone to serve both as a scaffold and a supply of lime salts, are not the only means by which osteogenesis may be excited. A distinction must be drawn between the experiments made upon the skull, in which one has chiefly to depend upon the cells of the diploe, and that of a long bone where the periosteum is the principal factor. A certain amount of irritation, by increasing the vascularity of the periosteum, may ensure the formation of bone. Thus, in a limb after necrosis of the shaft the periosteum became a fibrous band without making any attempt to reform the shaft. This band was split and plugs of wool soaked in turpentine in-

sented. By this means the blood supply to the periosteum was so increased that the whole bone was re-formed. In other cases of delayed union an improvement of the blood supply to the periosteum has been caused by rubbing or scratching the ends, injecting chloride of zinc, or by inserting pieces of decalcified bone. In some cases suppuration has followed grafting, and the grafts have been discharged, nevertheless the new bone formed. For the new formation of bone, therefore, the normal process of ossification holds good and the presence of (1) actively osteogenetic cells, (2) sufficient lime salts, and (3) a good blood supply are necessary; but a distinction must be drawn between cases in which periosteum still exists and those in which it has been destroyed, or, as in the skull, is naturally inactive. In the former cases where periosteum still exists, as in a long bone after necrosis of a large part of the shaft, any irritation tending to increase the blood-supply will suffice. In the latter case where periosteum has been destroyed—e. g., in the case of an injured nose or for a gap in the skull—living periosteum and bone will be required either by a flap or piecemeal from an animal. There is a danger of re-absorption nevertheless, even after new bone has formed. On two occasions I assisted Mr. Edmund Owen to graft living periosteum and bone direct from a puppy just killed for ununited fracture of the leg belonging to the class of "essential non-union of fracture in children." On both occasions firm union progressed and lasted for about six months, after which bending again took place at the site of the fracture.

Sugar as a Means of Increasing Uterine Contractions.

Some time ago Bossi brought the ecboic action of sugar before the notice of the profession (*Edin. Med. Journal*) and now Dr. Kosminski gives an account of his experiences with this agent. He gave from 300 to 800 grammes of sugar daily to pregnant women; from 100 to 300 grammes to women in the first stage of labour; and from 100 to 225 grammes to patients in the expulsive stage. His conclusions are:

1. Sugar given in large doses to pregnant women at term increases existing uterine contractions, and may even provoke labour; at the same time it causes vomiting and diarrhoea, lasting two days or so; and glycosuria, persisting for three or four days.

2. When given in rather large doses at the time of full term or premature confinement it increases the pains of both the first and second stages of labour, and seems also to have a favourable influence on the uterine retraction following delivery; if moderate doses are used glycosuria rarely supervenes, and when it does occur passes off quickly, without hurting either mother or infant.

3. The increase in the pains of labour following the taking of the sugar is not always exactly proportionate to the dose employed, pointing to an uncertainty in the action of the agent upon the muscular fibres of the uterus.

4. Large doses of sugar must be avoided in pregnant and parturient women, for it causes a rather intractable glycosuria.

5. Its employment has no very great practical importance; but it may be used to increase the expulsive efforts in the second stage of labor, or it may be given after delivery to encourage uterine retraction.

Chronic Gastritis of Long Standing, with Periodic Attacks of Migraine*Report of a Case.*

By GEO. A. CURRIDEN, M. D., of Chambersburg, Pa.

The herewith reported case is one of double interest, inasmuch as the patient has been under my care for a number of years, and previous to the commencement of the present treatment, I have been unsuccessful in affording much relief or preventing the recurrence of the frequent and periodic attacks of migraine, to which she had been more or less subject to since early womanhood. The cause of which I could not account for more than "a habit long continued," aggravated by gastric catarrh.

The history of the case is briefly as follows: Mrs. A., aged 55, since early womanhood has been subject to periodic attacks of migraine at intervals of two, three or four weeks, but seldom free from them at longer intervals.

An attack comes on by general malaise of usually a day's duration, repugnance of food or drink, marked drowsiness, much depression with request for rest and quiet, followed by complete prostration, dull frontal headache, with the least noise or disturbance makes the more intense, invariably accompanied by violent and frequent attacks of vomiting and retching, inability to retain any food or nourishment of any kind, retention of bowels, often cold sweats, pulse somewhat slow and weak and small in volume. This condition lasting usually two days, followed by gradual cessation of symptoms.

During the whole period of usually four or five day's duration, she is unable to take nourishment of any kind, remains constantly in bed, and desires only complete rest and quiet. The previous treatment has been so varied and on so many different plans, that I refrain from mentioning them.

Two years ago I was able to prevent an attack for over two months by the use of strychnine in 1-20 grain doses t. i. d. with careful diet and artificial digestion.

In May, 1895, I put her on Charles Marchand's "glycozone" in teaspoonful doses well diluted t. i. d., using this as all other previous remedies experimentally; she commenced to improve much in general health, an unusually good appetite, without the previous distressing symptoms following, a more regular movement of the bowels, freedom from headache, and in every way a decided improvement; this improvement and enjoyment of good health lasted during continuation of above treatment for over three months. Unknown to me she stopped taking the glycozone, thinking herself perfectly well. In a few weeks had a return attack, but milder and devoid of gastric distress. A similar attack two months later, both of which occurred some weeks after stopping the above described treatment, and I might say caused by imprudence in diet.

The conclusion come to, in this case, is that the headache is sympathetic, that the stomach becomes acutely inflamed by its inability to naturally and properly perform its functions, and responds to the call of nature to unload itself, and thus secure for a time rest, that the use of glycozone has corrected the existing gastritis, and by so doing has removed the primary cause of these many years of suffering.

Does Additional Experience show that Castration is a Curative Remedy in the Treatment of Hypertrophy of the Prostate Gland ?

Dr. A. T. Cabot, of Boston, drew the following conclusions in a paper read before the American Surgical Association :

1. In the matter of mortality, the operation of prostatectomy has a slight advantage over castration. It seems probable that with later statistics, reflecting the last improvements in the technic of prostatectomy, this advantage would be further increased.

2. Prostatectomy had the further advantage that it allows of a thorough examination of the bladder and of the discovery and correction of other conditions not before suspected. Stones are frequently removed in this way without adding to the gravity of the operation. In several reported cases of castration, the absence of improvement has led to subsequent discovery of stones, which have required other operations for their removal.

3. Prostatectomy has, on the other hand, the disadvantages that it confines the patient for a longer time, and that it is sometimes followed by a fistula. This occurred in one of the forty two cases.

4. It is too early to know whether any permanent loss of vigor follows castration when done on old men. The nervous effects which sometimes immediately follow the operation suggest a suspicion that with the testes the system may lose some tonic effect exerted by those organs.

5. The functional results of the two operations seem at present to be as nearly equal as possible, and the tendency to relapse shows itself in about the same proportion of cases after either operation.

6. The reduction in the size of prostate after castration is largely due to a diminution of congestion. Later a degeneration and absorption of considerable portions of the gland may occur. The glandular elements are particularly affected by this atrophy.

7. Castration would seem to be especially efficacious in cases of large tense prostates when the obstruction is due to pressure of the lateral lobes upon the urethra.

8. Castration is of but little use in myomatous and fibrous prostates.

9. Prostatectomy has its especial field in the treatment of obstructing projections which act in a valvular way to close the urethra. There is, however, no form of prostatic obstruction which a skilful operator may not correct by prostatectomy.

10. Prostatectomy is then applicable to more cases than castration and is especially to be selected when an inflamed condition of the bladder makes drainage desirable.

Does Antisyphilitic Treatment Prevent the Occurrence of the Diseases of the Nervous System which are Considered Syphilitic in Origin ?

Dr. Joseph Collins read a paper, with the above title, at the recent meeting of the American Neurological Association.

He pointed out that certain diseases of the nervous system occur sequentially to syphilis with such frequency that they are rightfully looked upon as syphilitic in their origin. These diseases are tabes, general paralysis, syphilitic spinal paralysis, and such exudative conditions as cere

bral thrombosis. After briefly reporting the history and treatment in nearly one hundred cases observed in hospital, dispensary, and private practice, the writer concluded as follows :

1. Exudative and degenerative diseases due to syphilis are most liable to show themselves at the end of the third and beginning of the fourth decade of life.
2. Thorough and prolonged administration of antisyphilitic remedies during the activity of the virus does not seem to materially advance this time limit.
3. That active and prolonged antisyphilitic treatment does seem to prevent the development of such diseases as locomotor ataxia and general paresis. This is true of degenerative diseases, though treatment may, however, have some effect in preventing the exudative diseases of the nervous system, such as syphilis of the spinal cord, disease of the blood-vessels, etc.
4. Bases of tabes and general paresis in which syphilis is confessed, and in which treatment has been most desultory and incomplete, are not more liable to the early development or to the severe manifestations of either of these two diseases than those in which the treatment has been all it should be.
5. That the administration of antisyphilitic measures in the most approved way does not fulfil the requirements of cure, and that syphilis is often an incurable disease.

Delivery Through a Central Rupture of the Perineum.

Dr. A. Sitzinski says, central rupture of the perineum is rare, and delivery of the fœtus and placenta through the tear is still rarer. He then relates a case of this kind concerning which a communication had been made to the St. Petersburg Obstetrical and Gynecological Society. The patient was 26 years of age, and a primipara; her pregnancy had pursued a normal course. (*Edin. Med. Journal*). The head presented in the first position, and in due course appeared at the vulvar aperture. There was great protrusion of the perineum and of the anus. Fearing a rupture the midwife made two lateral incisions 1 cm. in depth into the perineum. Soon thereafter she was surprised to find under her hand the child's face showing through a central rupture in the perineum just in front of the anal aperture. The head soon passed through the rent, and was followed by the trunk, and ten minutes later by the placenta. From the beginning of the pains the labour had lasted twelve hours, the second stage being one hour in length. The child was of more than average size, measuring 51 cms. in length, and weighing 3650 grammes. The enormous central tear in the perineum had an irregularly quadrangular form, its upper border was the posterior vulvar commissure, and its lower one the boundary between the skin and mucous membrane at the anal ring. In order to repair the rupture the posterior vulvar commissure was cut through in the middle line, and then the parts were brought together as in the operation of colpoperineorrhaphy, first the tear in the posterior vaginal wall being closed, and then that in the rectum. With the exception of a small recto-vaginal fistula the parts healed well, and both mother and child left the hospital three weeks after labour.

Pelvic Hematocele and Hematoma.*

By CHARLES N. SMITH, M. D., Professor of Gynecology and Clinical Gynecology in the Toledo Medical College. Gynecologist to St. Vincent Hospital, Toledo, Ohio.

Hemorrhage within the pelvis must be either intraperitoneal or extraperitoneal. The terms intraperitoneal hematocele and extraperitoneal hematocele have been, and are still to a limited extent, employed to distinguish these two forms of intrapelvic hemorrhage. By almost common consent and usage the term extraperitoneal hematocele has been abandoned and the term pelvic hematoma employed instead, while the term hematocele has been reserved for application to hemorrhage occurring within the peritoneum. The employment of these two terms in contradistinction has done much to clear away the confusion concerning intrapelvic hemorrhage.

Intraperitoneal hemorrhage is observed clinically in two forms, circumscribed and free. Every case of circumscribed intraperitoneal hemorrhage is primarily free, except in those comparatively rare cases where an antecedent pelvic peritonitis has resulted in the formation of adhesions within which hemorrhage secondarily occurs. A free intraperitoneal hemorrhage becomes circumscribed by a plastic peritonitis agglutinating the coils of intestines, the omentum, uterus and parietal peritoneum. If the hematocele, so circumscribed, remains undisturbed for a sufficient time it becomes completely surrounded by an adventitious wall of considerable density and thickness.

An understanding of the formation and progress of pelvic hematocele and hematoma must be based upon a knowledge of the phenomena attendant upon the course of ectopic gestation. While intrapelvic hemorrhage may, without question, result from conditions apart from the extrusion, complete or incomplete, of an ectopic ovum, either by rupture of, or abortion from, a Fallopian tube, still, other causes than the latter must be considered as but rarely operative.

All of the older writers and, it is to be regretted, a few of the present day, attempt to explain the occurrence of intraperitoneal hemorrhage in many cases by supposing a reflux of menstrual blood through the tube. Some color of truth is given to this theory by the fact that coincident with the formation of the hematocele occurs a bloody flow from the uterus. This uterine hemorrhage occurring at or near a menstrual period is erroneously considered a true menstruation. Numbers of the cases of hematocele so occurring and seemingly so explained have been subjected to operation for evacuation of the hematocele and the observers have been surprised at the firmness of one of the clots, or at the widely patent ostium and the collapsed condition of the tube which had evidently been considerably distended, or at a firm clot partially protruding from the fimbriated ostium of the tube, or at a rounded enlargement entirely within the tube. Some of these have been interpreted aright as cases of complete or incomplete tubal abortion, but in many instances the real condition has been overlooked and a reflux of menstrual blood supposed to be the cause of the hemorrhage. I believe that in all such cases a microscopical examination will demonstrate the presence of chorionic villi, an absolute

*Abstract of a paper read before the Ohio State Medical Society, May 29th, 1896.

proof of fetal development, rendering positive the diagnosis of ectopic gestation.

The uterine hemorrhage which may occur at or about a regular menstrual period, and is concurrent with the formation of the hematocele, is not a true menstruation but a phenomenon associated with the shedding of the uterine decidua, which invariably forms in cases of ectopic gestation. Rather than being the cause of the hematocele, the uterine hemorrhage, like the hematocele, is caused by a disturbance in the progress of the ectopic gestation. I cannot accept the view, still held by many, of a reflux of menstrual blood into the peritoneal cavity causing pelvic hematocele.

Tubal abortion is, in my estimation, a far more frequent event than is ordinarily supposed. The position of an ectopic ovum is the very early weeks, that is, prior to the formation of the placenta, is most precarious. If the ovum, especially if situated in the outer third of the tube, becomes dislodged from any cause during these early weeks, its extrusion from the tube by abortion through the unclosed abdominal ostium is far more probable than is its escape through a rupture in the tube wall. The closure of the tubal ostium is not, ordinarily completed until the eighth week of gestation and the development of the ovum in the outer third of the tube not only materially interferes with this closure but even tends to enlarge the opening by distending the tube.

In tubal, as in uterine, abortion the process may be either complete or incomplete. When the abortion, in the very early weeks, is complete, the hemorrhage should cease and not recur. On the other hand, when the separation of the ovum has been but partially accomplished, hemorrhage, as in incomplete uterine abortion, is prone to either continue or recur. The ultimate termination, in an uncertain number of these cases, be the abortion complete or incomplete, is by absorption of the blood and ovum, with return of health to the patient. Convalescence is, however, frequently prolonged through months or years and is marked by many stormy and dangerous periods. At best, a diseased tube and many dense adhesions between pelvic and abdominal organs are left to menace the woman throughout the remainder of her life. For the immediate, as well as the ultimate, comfort and safety of the patient, operation should be instituted in all cases of tubal abortion accompanied by appreciable hemorrhage, be it circumscribed or free, recurrent or non-recurrent.

Tubal abortion, with sudden free hemorrhage, cannot be differentiated from intraperitoneal rupture until the abdomen has been opened and the tube examined. The earlier the abortion takes place the less will be the amount of hemorrhage, provided the abortion be complete. The hemorrhage and consequent formation of the hematocele in early abortion will be *gradual*.

When intraperitoneal hemorrhage from rupture of a pregnant tube is diagnosed immediate preparation for operation must be made. This must be followed in all cases of severe hemorrhage by the immediate performance of abdominal section. The rule has been largely adopted of postponing operation until recovery from shock has occurred. In the strict observance of this rule many a life has been lost which might have been saved by an immediate operation during shock. If we but consider the cause of the shock we will see the fallacy of the above rule. Shock in these cases means hemorrhage and hemorrhage alone. To wait for re-

covery from shock may be to wait for the patient to die. Nature arrests the hemorrhage when the heart but slightly feels the stimulus of the blood within its cavities. How much more surely, safely and quickly can the surgeon arrest the hemorrhage by his timely applied legature. I would urge the necessity and practicability of immediate operation regardless of the degree of existing shock. Every moment of delay may mean increased hemorrhage, more profound shock and a rapid approach of death. I grant that the hemorrhage, even when severe, with the patient's life in greatest jeopardy, may cease, and the patient rally from shock. On the other hand, this recovery from shock may not occur, or recurring, be followed, at a greater or less interval, by recurring and still more severe hemorrhage, with death of the patient before operation can possibly be performed. It is the treacherous uncertainties which surround these cases that should prompt us to refuse to be tricked into a false sense of security and a policy of delay.

While a smaller proportion of the cases of pelvic hematoma, as compared with pelvic hematocele, are the result of ectopic gestation, still the majority are so caused, the tube rupturing between the folds of the broad ligament. Operation is seldom, if ever, called for at the time of or immediately following, extraperitoneal rupture of a pregnant tube. The hemorrhage takes place, not into a cavity, but among the tissues, which serve as a limiting walls, preventing sudden, excessive hemorrhage. Such cases demand careful investigation to ascertain as accurately as possible, for future comparison, the extent of the hemorrhage and the relations and size of the resultant tumor. Examination must be subsequently instituted at short intervals to determine whether the size of the hematoma is increasing or diminishing. If repeated examinations demonstrate a progressive enlargement of the hematoma, a presumptive diagnosis of continued life and development of the fetus is warranted. In event of the continued life of the fetus, its removal by abdominal section should be accomplished without delay. Abdominal section for removal of the fetus before the completion of the fourth month of gestation, while difficult and hazardous, cannot compare, either in difficulty or hazard, with the operation when performed after the fourth month. Owing to the growth of the placenta and the encroachment of the sac upon the surrounding structures, it then becomes one of the most trying and dangerous operations of surgery. Secondary intraperitoneal rupture may take place at any time and if the placenta lies above the fetus and is torn or partially dislodged, a most profuse hemorrhage may occur, with death of the patient before measures for her relief can be adopted. To save the mother from both the extreme dangers of a late operation and the so frequently fatal results of a secondary intraperitoneal rupture, operation should at once be performed whenever the continued development of the child is determined upon.

The Journal of Medicine and Science remarks concerning vaccination, that the opponents of this most beneficial measure have only to enter Italy and witness the frequent outbursts of smallpox and its ravages among the rural population, to be taught a lesson of its value. Blindness from smallpox, almost totally stamped out in England, finds frequent victims still in Italy, where vaccination is only done sporadically among the country people.

Elimination, Antisepsis and Starvation in the Treatment of Typhoid Fever.

H. S. McConnel, M. D., (Medical Record,) says the physician who now treats this disease on the so-called rational or let-alone plan, is as criminally negligent as the surgeon who to-day in treating wounds ignores asepsis. This may seem a bold and unwarranted statement, yet if it is not true, all the time, labor, and money spent in the bacteriological study of typhoid fever have been in vain, our conclusions erroneous, and the bacillus typhosus is a myth. Accepting the micro-organism theory, believing that the point of attack is in the alimentary canal, that the characteristic symptoms are due to the absorption of the toxin, and are the result of the local activity of the specific bacilli, and that a case is grave or mild dependent upon the quantity of said toxin in the blood, are we not compelled to grant the truth of the above?

If Eberth's bacillus is the cause—the corroboration of Elsner's observations seem to place this beyond doubt—and it is ably assisted by the bacillus coli communis, a treatment based upon this pathology and directed to the exclusion and annihilation of these bacilli is certainly a rational one, and when pathology and treatment go hand in hand with a diminished death rate, and at the same time the patients are more comfortable than by any former methods, we are certainly justified in the above statement.

To fulfil all the indications there are three essential features that we must bear in mind

First, the prevention of the introduction into the digestive tract of any specific bacilli.

Second, expulsion and destruction of all bacilli in the alimentary canal, and the elimination of the products of their labor.

Third, rendering the canal thoroughly aseptic, making it sweet and clean, and keeping it, as nearly as possible, in this condition.

The first is best accomplished by permitting nothing but boiled water and the remedies to enter the stomach, and by keeping the mouth, teeth, nostrils, hands, finger nails, whiskers; and the excretory outlets aseptic. The latter precaution is very important, and these parts should be thoroughly washed after each evacuation. The room must be cleared of all unnecessary articles of furniture and clothing, and all vessels must be kept surgically clean. Milk or any kind of food should remain in the room no longer than is required. The apartment should be well lighted and the temperature not above 65°.

The second object can be accomplished by giving three five-grain powders of calomel at hourly intervals, followed with Rochelle salts until there is free catharsis. The patient must have no less than two free passages every twenty-four hours during the fever. If the salts and an occasional dose of calomel will not do this, we must resort to some more active cathartic. Though contrary to what we were taught, purgatives reduced to a minimum the liability to hemorrhage or perforation. The ulceration of Peyer's patches is not typhoid fever. It is caused by the direct irritation of the bacterial poison, and, as Professor Thistle has so ably demonstrated, the extent of the ulceration is in proportion to the degree of concentration and duration of contact. By purgatives we increase the quantity of the intestinal fluids, dilute the toxin and expel it, and

thereby decrease the danger from its local action upon the glands; we restrict blood contamination, reduce the number and activity of the bacilli, and permit the restoration of the disabled tissue.

The third indication is met by guaiacol, salol, or any of the other intestinal antiseptics. For the first few days I prefer salol, after that guaiacol. An enema morning and evening, of a large quantity of salt and cold water must be given regardless of the condition of the bowels. All food, and this includes milk, must be prohibited for three days. Recent investigations prove that in typhoid fever very little, if any, hydrochloric acid or pepsin is secreted, and Professor Thompson says the stomach is similar to that of a new born babe's. Yet in the discussion of typhoid fever a few weeks since before the Cleveland Medical Society, one of its members said he endeavored to have all his typhoid patients take nine pints of milk in twenty-four hours, and in a large number of cases the daily average was over eight pints. Jenner says that a pint of milk is equal to a full sized mutton chop. Think of it! nine mutton chops to a fever patient in one day. Is this not absurd? Is it not injurious? Is it not malpractice? And, to make it worse, this is forced upon a patient who, except in rare instances, has no appetite, who even loathes the sight or taste of food. If a strong, active, and healthy laborer was to consult you about some uncomfortable feeling in his stomach, and told you he ate nine mutton chops per day, if you did not tell him he was a swine you would think so. Recalling the fact that hydrochloric acid is nature's preventive of putrefactive changes, and the formation of dangerous ptomaines in the digestive tract, we see that a fever patient stuffed in this manner is surrounded with perils so great that the danger from the bacillus typhosus sinks into utter insignificance. The patient is weak from fever and toxæmia, not from want of food. Increased feeding does not imply increased nourishment, but oftener diminishes it from overworking the already enfeebled stomach.

Jenner years ago called attention to the injury from overfeeding, and said he had often seen delirium, fever, and restlessness subside after the expulsion of large curds of undigested milk. It will be said this is retrogression. The starvation plan was active a century hence. Well and good. If you will exclude bleeding, tartar emetic, and salivation, the treatment then was excellent. Over sixty years ago Eberle's treatment was as follows: Plenty of bland drinks, no food, and purgatives; the latter were given to free the intestinal tract of all irritating and poisonous substances, and he preferred the neutral salts as a purgative. That was good treatment then for typhoid fever, and it is one of the elements of the best treatment to-day.

Dysmenorrhœa.

In the March number of the Alabama Medical and Surgical Age is a very interesting article on Dysmenorrhœa by G. C. Chapman, M. D., of Birmingham, Ala., which we hope to soon reproduce in our Journal.

Speaking of various methods of treatment, the doctor says: "But the remedy that has proven the greatest boon to my patients has been Dioiburnia, given in tablespoonful doses, four times daily, beginning four or five days preceding the expected attack, and after the flow is established, every two or three hours."—*California Medical Journal*, May, 1896.

Treatment of Gangrene as a Complication and Sequel of the Continued Fevers, Especially of Typhoid.

Dr. Keen (Boston Medical and Surgical Journal). The preventive treatment is the most important, such as good food, fresh air, the best hygienic surroundings. Should the heart flag, the stimulation must be maintained at all hazards, alcohol in liberal doses is perhaps the best remedy. Digitalis, strychnine, spartein, strophanthus and other cardiac tonics of the later pharmacopeia may be added. The body should be carefully examined, especially those parts of it which experience has shown are most likely to be attacked, pre-eminently the lower extremities and the genitals. The arms, neck and head being exposed are much more likely to attract attention should they be attacked by gangrene than those which are covered by the bed-cloths. If baths are used, care should be taken that no mechanical injuries are inflicted, especially on the legs. Chapman's ice and hot-water bags, alternate heat and cold, with very moderate friction and stimulating liniments should be advised and the use of the constant current as a means of stimulation the collateral circulation, both in the deep as well as the superficial parts, will be of service. If gangrene is not only threatened, but actually sets in, the gangrenous parts should be kept as aseptic as possible by the free use of antiseptic dressings.

The question of amputation naturally is one of the most important that is raised. In gangrene of the genitals, head, neck and trunk, operation of course, is limited to the removal of the dead and sloughing tissues and especially in the promotion of the utmost cleanliness, particularly in parts of the body soiled by urine, feces or the menstrual discharge. Detergent washes and stimulating douches, the keeping of the rectum free from accumulated feces and thorough and free incision in abscesses in the vicinity of the anus are to be especially commended.

In the extremities if amputation is necessary, the time when it shall be done depends largely upon whether the gangrene arises from distinct obstruction by a palpable thrombus or embolus, or whether it arises in the peripheral vessels without such an appreciable mechanical obstruction of the main vessels. In the latter case, the line of demarcation is usually established pretty early and the disease is generally unlikely to advance beyond this line. Amputation, therefore, should be done as soon as the line of demarcation is well pronounced, and it may be done but little above this line, since there is no obstruction in the vessels higher up which would threaten the integrity of the flaps.

In the cases where a distinct thrombus or an embolus has formed, however, the obstruction is very apt to extend farther and farther as time goes on by secondary thrombosis. At what level, therefore, the limit between the tissues which must necessarily die and those in which nature can still keep up a healthy life will occur, cannot be stated definitely until the line of demarcation is well established. But the facts obtained by a study of my two series of cases aid us very distinctly in this matter. When the clot extends only up to the popliteal, the leg may escape gangrene altogether, and should it follow, I have found it limited in 21 cases to the foot six times, to the lower half of the leg once and to the upper calf in 14 cases. When the clot extended into the femoral, the gangrene extended to the upper calf in 11 and to the thigh in eight cases. When

the clot extended above Poupart's ligament, the gangrene was limited in 15 cases, to the foot in one, the calf in eight and extended above the knee in six. Amputation in these cases, therefore, should not be done, as a rule, until a well defined and probably final line of demarcation has been formed. When operating, the leg should be made bloodless by elevation and kept so by very careful digital compression. The Esmarch bandage, as pointed out by Quervain, should not be used, partly because it may injure the lessels of the stump and so favor a new arterial or venous thrombus, partly because it may break up an existing venous thrombus and give rise to a dangerous embolus. To this I would add another evident objection, that the septic fluids in the tissues should not be forced into the general circulation. The hemorrhage will be slight, since certainly the artery and often, both artery and vein will be obstructed, so that the "muscles will look like meat soaked in salt and water and there will be no oozing from the marrow of the bone." Quervain's meathod of operating was both ingenious and useful. After forming an anterior flap and before making the posterior flap containing the vessels of the lower thigh, he disarticulated only the bones at the knee-joint, dissected the femur loose for twelve centimetres above the joint, and divided the bone, then exposed his posterior flap. The wisdom of ligating the artery before dividing it was shown by the fact that in the amputated part, it was found to be filled with a loose clot, which would almost certainly have been dislodged by the manipulation if the flap had been made prior to ligation and so have caused considerable hemorrhage. Such patients have not a drop of blood to spare.

As a general rule, therefore, we should wait for the line of demarcation, but the operation should not be deferred long after its appearance. If danger of septic infection or speedy exhaustion should appear, immediate amputation at or above the probable limitation of the disease should be done. The extension of the disease, if the femoral be free, will not be in the majority of cases, above the tubercle of the tibia. If the femoral be involved, necessitating an amputation of the thigh, the resources and the safety of modern antiseptic surgery would lead us in general to amputate, but in some cases it may be a serious question whether expectant treatment and a relatively long-subsequent amputation might not be less dangerous than an earlier operation.

The Mississippi Valley Medical Association.

A meeting of the Executive Committee of the Mississippi Valley Medical Association was held at Atlanta, on May 6th, and the following gentlemen were appointed to deliver addresses :

DR. H. N. MOYER, Chicago, Address on Medicine.

DR. HORACE H. GRANT, Louisville, Address on Surgery.

The indications are that the meeting to be held at St. Paul, on Oct. 20, 21, 22 and 23, will be the largest and most successful in the history of Association. As all the railroads will offer reduced rates for the round trip, an opportunity will be given to visit St. Paul and Minnesota during the most delightful season of the year.

C. A. WHEATON, M.D., St. Paul, Minn.,
Chairman Com. of Arrangements.

H. O. WALKER, M.D.,
President, Detroit, Mich.

H. W. LOEB, M.D., 3559 Olive Street, St. Louis, Secretary.

Diagnosis and Treatment of Extra-uterine Pregnancy.

Chaput at the French Surgical Society concludes that (1) the differential diagnosis between hæmatocele and pyosalpinx was usually difficult, (2) non-ruptured extra-uterine pregnancy before the fifty month can only be suspected; (3) in extra-uterine pregnancy complicated by non-encysted hæmorrhage surgeons are unanimous as to the proper treatment being immediate laparotomy; (4) in encysted hæmatocele or effusion the choice lies between (a) laparotomy, (b) incision *per vaginam*. The latter is far from being free from danger, and the author always performed laparotomy if hæmatocele resisted ordinary medical treatment. Even if it is first discovered on making a vaginal hysterectomy or puncture he would perform laparotomy, which makes it possible to take away the ovum and placenta, and stop bleeding. In the discussion which followed Bouilly thought that in any case of extra-uterine pregnancy one had to do with an abdominal tumour which indicated laparotomy. Laparotomy is also indicated when sudden alarming symptoms make one suspect rupture of extra-uterine pregnancy. The symptoms of hæmatocele from rupture of extra-uterine pregnancy usually make the diagnosis easy; suppression of menses, suddenness of onset of symptoms, more or less peritonitis, and development of tumour in Douglas's pouch. Incision through the posterior *cul-de-sac* is the best treatment. Bouilly had performed 13 cases with the best results. Tuffier thought the diagnosis of rupture by no means easy. Out of four cases seen by him he mistook the first for acute peritonitis from perforation, in the second no diagnosis was made. He agreed with Bouilly that incision through the posterior *cul-de-sac* was the best treatment of simple or suppurating hæmatocele. Reynier and Terrier, however, limit vaginal incision to septic cases, performing laparotomy in all recent ones, which allows the operator to see what he is doing, and to remove diseased appendages if necessary.

Larval Tuberculosis.

The Record says: Larval tuberculosis is that in which typical manifestations of infiltration are wanting, although other symptoms of the infection are present. This type of the disease may appear in one of two forms: (1) dystrophic, (2) typhoid. The first is characterized by progressive disturbance of nutrition. The patient gradually fails, anæmia develops, the heart becomes enfeebled and the pulse rapid, the appetite is lost and the digestion impaired, debility ensues and mental depression results. As a rule, there is an absence of fever, and physical signs may appear only late. The typhoid form of larval tuberculosis is from the beginning attended with fever, to which derangements of innervation are early added. The fever is at first intermittent, later becoming remittent, or subcontinuous. The general strength may be maintained. Exacerbations closely resembling attacks of typhoid fever are repeated from time to time. In some cases both types of the disease may be present.

The manifestations of larval tuberculosis are to be attributed to intoxication with the products of bacterial activity and vary as one or other poison predominates. The symptoms of tuberculosis may be masked, whatever the localization of the lesion; but this is most often the case when the lungs and the lymphatic glands are involved.

The diagnosis of larval tuberculosis must be made by exclusion, the greatest care in observation being exercised. Tuberculosis of persistent latency is beyond recognition; if the latency is intermittent the history of the case is of the utmost diagnostic significance. In some cases in which doubt exists after the exhaustion of all therapeutic resources, Maragliano suggests a study of the toxicity of the blood-serum. He has found that from three to five cubic centimetres of blood-serum from a patient suffering from tuberculous toxæmia for each kilogram of body weight is sufficient to cause death in rabbits. The best means, however, of detecting the existence of latent tuberculosis is the intelligent use of tuberculin injected beneath the skin. Some individuals will react to injections usually from one to three milligrams and never exceeding ten milligrams, with fever and physical signs such as rales at an apex, with harsh breathing. Others will not react to this dosage, but after an injection of twenty-five milligrams will present swelling of lymphatic glands and localized signs in the lungs or other organs.

The existence of tuberculosis being thus established, the treatment will be general or general and specific. The first includes all measures capable of improving the general nutrition and increasing the bodily resistance. The last includes the judicious use of tuberculin or antitoxic serum.

Cholera Antitoxin.

The British Medical Journal, June 20, 1896, discusses the subject editorially. Petri, Hueppe and Wood, and Scholl were the first to indicate that under certain conditions active toxic substances were formed by, and could be dissolved out of, cholera bacilli. Latterly Pfeiffer has maintained that the separable poison in the cholera culture is comparatively small in amount. Metchnikoff and Gruber have combated this latter idea, whilst Behring and Ransom have been able to separate from cultures an active toxic substance (which is not modified even by a temperature of 100° C., which has a very rapid action on animals, inducing prostration and marked lowering of the temperature) with which they have been able to prepare an antitoxic serum of considerable power. Pfeiffer, of course, cannot accept this set of experiments as correctly indicating the nature of the poison. This controversy has naturally raised the question, Are the two poisons the same, and are the antitoxic serums produced by the injection of the two poisons of similar quality and activity?

It has been maintained by Klein and others that the anti-diphtherial serum produced by the injection of a culture of diphtheria bacilli into a horse has the power of destroying diphtheria bacilli when mixed with them, whilst the antitoxic serum produced by the injection of the soluble toxins only exerts little if any such action.

These observers are convinced, as the result of a series of most ingenious experiments with virulent cholera bacilli, that in recent cholera cultures a poison exceedingly resistant to heat and having all the characters of that described by Ransom, can be prepared. They have been able to immunise horses and goats against this cholera toxin just as Funck has been able to obtain similar immunity against typhoid toxins, and also to obtain antitoxic serum. Using small suckling rabbits they find that they are able to induce a purely intestinal cholera, similar to

that found in the human subject, in which the vibrios are not found in the blood, but in which the symptoms of poisoning are very profound. By using the antitoxic serum prepared by their method this intestinal cholera could be modified and prevented in a certain proportion of cases, although Pfeiffer's antitoxic serum, prepared by the injection of the bodies of cholera bacilli, appeared to exert little or no effect on this form of the disease; the serums, extremely efficacious against ordinary cholera infection, that is to say, against the invasion of the blood and of the organs by the Koch's cholera bacillus, being powerless against the intestinal cholera of small rabbits.

After failing to obtain results with Pfeiffer's serum against intestinal cholera, the French observers performed a considerable number of experiments with serum prepared by Behring's method, with the result that rabbits so treated recovered in a proportion of 45 per cent., whilst rabbits not treated in this fashion only recovered in a proportion of 24 per cent. When the injection of the serum was made before ingestion of the virus 12 animals died and 15 recovered against 31 which died and 16 which recovered of the animals untreated. When the injection of the serum was made at the time that the virus was ingested, 8 animals lived and 10 died, against 16 that died and 5 that lived of animals not treated.

Treatment of Ankylosis of the Hip.

Lorenz (Edinburgh Medical Journal) is opposed to the practice of subtrochanteric osteotomy in cases of osseous ankylosis of the hip-joint. He asserts that by division of the femur below the trochanters, the malposition of the lower limb cannot be overcome without further shortening due to the angular bend of the shaft of the femur at the seat of section. A much better treatment, it is argued, is subcutaneous division by chisel and mallet of the osseous bond between the head of the femur or the remaining portion of the neck of the bone on the one hand, and the external surface of the ilium on the other. The operation as applied to the most frequent conditions of ankylosis of the hip, in which the head of the femur has been absorbed, is called pelvi-trochanteric osteotomy. Several advantages are claimed for this method. The osteotomy being what is termed a linear one the external wound is very small, and the operation may be easily performed, and produces very little disturbance of the soft spots. As the correction of the deformity is affected by an immediate attack on the angle causing the malposition of the limb, there is no interference with the shaft of the femur, the length and normal direction of which are still maintained. It is stated that no difficulty will be experienced in restoring the normal position of the limb if, at the same time, the adductors and the muscular and fibrous structures in front of the joint be divided subcutaneously. The relations of the surfaces of the divided bones to one another are very favourable to a restoration of the proper direction of the limb, whether this be fixed in a position of flexion, abduction, or adduction. The after-treatment in cases in which pelvi-trochanteric osteotomy has been performed is extremely simple, as there is no necessity for long confinement of the patient, who by the application of a plaster apparatus to the affected limb, and by elevation of the opposite foot on a patten, may be enabled to leave his bed on the fifth or sixth day. This operation, it is held, besides effectually removing the fixed osseous

deformity, will, provided the after-treatment be carefully attended to, in all probability result in the formation of a moveable joint, and in the restoration of the seriously impaired muscular action of the limb. These conclusions are based on the results of six cases in which pelvi-trochanteric osteotomy has been performed by the author.

Cerebral Palsies Due to Whooping-cough.

Dawson Williams (The Practitioner). As is well known, hæmorrhages from the mucous membranes of the nose and throat are not uncommon in whooping cough during the paroxysmal stage, and subconjunctival ecchymoses are very often produced. They are apparently due to the extreme venous congestion caused by the expiratory spasm which precedes the whoop. After a paroxysm, or a series of paroxysms, the child is often left in a condition of great exhaustion, amounting sometimes to collapse, which lasts for half an hour or more, during which time it lies motionless, limp, and apparently unable to move. In some cases loss of sensation has been associated with the paresis. In others, various forms of sensory aphasia have developed and may persist for several weeks. Sometimes the child is able to speak, answer questions, and recognise people and objects, but is unable to find the names of objects with which it had been perfectly familiar. In other cases again the power of speech is almost completely lost, only a few simple words being retained, and the patient is unable to recognise persons and objects with which it was well acquainted (apraxia). In some of the cases in which nervous symptoms of this order occur, general convulsions take the place of the exhaustion following the paroxysms; in others the spasmodic movements are limited, as in one case recorded by Troitzky, in which there were facial convulsions, irregular movements of the eyes, and retraction of the head. The convulsions, however, may be followed by paralysis, which has usually a hemiplegic distribution. The paralysis may be a regular hemiplegia affecting the face, arm, and leg on one side, and has been proved to be due to hæmorrhage in some cases, but in others recovery has taken place in a few weeks, and is so complete that it is difficult to suppose that the symptoms can have been due to actual extravasation. Of the more limited palsies which occasionally occur in whooping cough, Dr. F. A. Craig, of Londonderry, has recently published a striking example in the British Medical Journal. The child, a girl, when taken ill, three years and three months, has paralysis of the sixth and of the facial nerve on the left side. The facial paralysis involves the orbicularis palpebrarum, as well as the lower part of the face, though less severely. It is due in all probability to lesion of the nucleus of the sixth nerve which has involved the strands of the facial below its nucleus. It came on after the child had been suffering from whooping-cough for about three weeks, and while the paroxysms were severe. The heart sounds were normal when the child was first seen five weeks after the paralysis of the face and squint were first noticed, so that there is little likelihood that the lesion was due to embolism, and it is most probably to be attributed to venous hæmorrhage produced towards the end of a paroxysm when the venous pressure must be high. The child has recovered from the whooping-cough, but the paralysis of the sixth and facial nerves remains unaltered now, more than seven months after the onset.

A New Hypnotic.

Prof. Jolly (London Lancet) has given an account of a new hypnotic called pellotin, which is not prepared by chemical synthesis, like the other sleep-inducing medicaments of the present day, but is an alkaloid discovered in a species of Mexican cactus called anhalonium. The natives of Mexico are reported to swallow slices of this plant to which they give the name of "Pellote," and Dr. Hefter of Leipsig has now succeeded in isolating its soporific alkaloid. Pellotin itself is not soluble in water, but its hydrochlorate is extremely soluble. Its physiological action was first tried on frogs and then on mammals, which very soon became unable to stand or perform spontaneous movements, and shortly afterwards an increase of the reflexes was observed, followed by tetanic convulsions. This action of the drug on animals was not identical with that which Dr. Hefter observed in himself, for after taking five centigrammes (three quarters of a grain), he became very drowsy and ultimately fell asleep. The drug was then given by Professor Jolly to a number of patients in the neurological wards of the Charite Hospital in Berlin. The first case was that of a man suffering from alcoholic neuritis who, after an injection of four centigrammes became very drowsy, and one hour afterwards he fell into a sleep which lasted for four hours. Dr. Hefter had observed in himself a diminished pulse-rate and the same symptom was perceptible in this patient, during the first hour of whose sleep the pulse to 56 per minute, raising again to 76 before the man awoke. Another patient with multiple sclerosis took five centigrammes during the afternoon, and after half an hour he also slept soundly for several hours. Similar results were obtained in a series of other cases. In patients suffering from tabes the soporific action was equally satisfactory, but the pains returned after they woke. In delirium tremens the effect was less prompt; in one instance twelve centigrammes (equal to one and three-quarter grain) were needed only to tranquillise an excited patient, but no sleep ensued. In twenty cases of different kinds the remedy was given as a hypnotic in the evening. Two centigrammes had no effect, but from four to six were efficacious in producing sleep and no injurious consequences of any kind were observed. Some patients complained of giddiness and declined to take the medicine, but the greater number did not suffer in this way. Professor Jolly says that six centigrammes (equal to about one grain) of pellotin are equal to one gramme (equal to $15\frac{1}{2}$ grains) of trional, or two grammes (equal to 31 grains) of hydrate of chloral. The number of cases is as yet too small to justify the formation of a definite opinion as to the new remedy, but it undoubtedly deserves further trial.

Acute Syphilitic Myelitis.

V. Starck records the following case: A woman, aged 27, suffered from general symptoms seven or eight weeks after contracting syphilis. Six months later she was again under treatment for tertiary manifestations. Twelve months after the infection the nervous symptoms began with pain in the back and legs. Within fourteen days the clinical picture of a lumbar myelitis was developed. There was very considerable motor and sensory paralysis in the legs, paralysis of the rectum and bladder, and an absence of the knee-jerks. A bedsore rapidly formed. There was a

moderate degenerative atrophy of the muscles and a partial reaction of degeneration. The superficial reflexes were diminished. After three and a-half months all the symptoms disappeared and the legs completely recovered. The treatment consisted of injections of salicylate of mercury (0.1 g.) twice a week and the use of iodide of potassium. There was also present a peripheral facial paralysis of uncertain origin. The author thinks that the previous history of syphilis with active manifestations, together with the improvement under antisyphilitic treatment, shows that the cord affection was syphilitic in nature. A considerable number of cases have been reported of a rapidly-oncoming paraplegia occurring in the first year of syphilis, usually accompanied by marked sensory disturbances and bladder and rectum paralysis. The above case differs from many of the others by the exceptionally favourable termination. Such a complete recovery is unusual. Occasionally death has occurred from pyelo-nephritis, etc. The author thinks that the spinal meninges were here unaffected. Whether the good results obtained by the anti-syphilitic treatment could be attributed to the injections cannot be stated with certainty. The author has exclusively used mercurial injections for four years with good results and no drawbacks. For out-patient practice these injections are very convenient.—*British Med. Journal.*

Peritoneal Adhesions are the Cause of Pain.

This has been made the subject of study by Bouquet de Joliniere (Lancet). After showing how adhesions between different organs in the abdomen may be a cause of various symptoms, the writer points out more especially the manner in which various grave forms of diseases may be simulated by chronic peritoneal adhesion. In the case of the stomach, adhesions may cause much pain, together with dyspepsia and vomiting. Pain in the gastric region is a constant feature, but varies very much in its characteristics, such as resembling stabbing, dragging, feeling of weight, etc. It occurs at variable times in relation to food, sometimes immediately, sometimes after an hour or so, and may increase in intensity till the patient vomits. During fasting the pain is usually absent. The pain may radiate, or be localised, or may have its point of maximum intensity at the pylorus. Next in importance as a symptom is vomiting, which very often completely relieves the pain. There may be other secondary symptoms as the result of the derangement of the gastric function. The author points out the difficulty of diagnosis in such cases, and gives as an instance the account of a patient in whom various gastric diseases, such as ulcer, had been diagnosed. By means of laparotomy considerable adhesion was found between the stomach, the liver, and the transverse colon. These adhesions were thick and hard, and great difficulty was experienced in separating the stomach. Such was the feeble state of the patient that he was not expected to recover. He, however, did so completely. In this case it was impossible to discover the cause of the adhesions. Intestinal adhesions also have more or less pain as a constant feature, and in such instances there is also great variation in the character of the pain. Adhesion of the gall bladder is also a cause of pain closely resembling biliary colic. The author believes that surgical interference is the most promising treatment, and the prognosis, strange to say, is rather good.

Vitality of the Diphtheritic Bacillus Out of the Body.

Flugge, in his *Grundriss der Hygiene*, published in 1889, stated that the microbes of diphtheria retained their virulence for ten days in the form of dust and from four to six weeks if dried in dense layers; but in a paper on the means by which the disease is spread, which appeared in the *Archiv fur Hygiene* in 1894, he expresses his incredulity as to aerial diffusion of diphtheria beyond the range of personal intercourse, on the ground that the degree of desiccation required for the floating and conveyance of the bacilli in currents of air would be fatal to them. (Lancet.)

Roux and Yersin and Pernice and Scagliosi had carried out some experiments with portions of the membrane, but Carlo Reyes, deeming these unsatisfactory, since it was not by such means but rather by the saliva, mucous discharges, and similar fluids that the infection took place, undertook an inquiry into the subject, using pieces of linen or cotton, silk, paper, sand, and finely pulverized and sifted earth, which he saturated with emulsions in water of pure cultures of great virulence. These materials were allowed to dry spontaneously and were then exposed to light or were kept in darkness in air of the normal humidity at ordinary temperatures, or maintained in a state of saturation; and in atmospheres artificially dried by H_2SO_4 , or kept at a constant temperature of $37^{\circ} C$. His results, show that mechanically and absolutely dried air Loeffler's bacilli died in all cases within a few hours, forty-eight at the most; that light had, as a rule, but little influence; that under other conditions they retained their vitality on silk and paper for a few days only in dry, and for about a week in moist air.—*Scientific American*.

Kola-Koloid.

Editor Prescription:

In a late issue of the *Prescription*, Dr. Johnson calls attention to the use of kola-koloid in a case of melancholia. Although I have never used it in cases of insanity of that nature, I have repeatedly seen a marked effect in the amelioration of those minor cases of melancholy called the "blues." Frequently after a single dose the whole moral atmosphere will be changed. The preparation, one of Theodore Metcalf Co.'s, has a wide therapeutical range, being applicable in a large number of cases where mental or physical exhaustion are prominent symptoms. I have had occasion to test its value in my own case during the past year.

There never was a more comprehensive description of La Grippe than the hibernianism. "It is a disease where you feel worse when you are getting better, and it takes six months to get well after you are cured." Those who have had a personal experience with the disease can appreciate the truth of it.

After an attack of grippe I found nothing in the nature of a tonic and stimulant which acted so beneficially as kola-koloid. This combination has greater efficiency than any other, and what is of great importance no drug habit is engendered. When the necessity for its use is past it can be discontinued at once.

W. E. ANTHONY, M. D.

Providence, R. I., May 14, 1896.

Calcium Treatment in Diabetes.

K. Grube (Lancet) adds to his cases of what might be called the "eggshell" treatment of diabetes. In 1894 a diabetic man, aged 25, was sent to Grube for treatment. The elder brother had already died from the same disease. The patient himself had reached the stage when, in spite of strict dieting, sugar continued to appear in the urine. He had begun to lose in weight and strength, and attacks of gastric disturbance, associated with constipation and prostration, added to his troubles. In the beginning of 1895 a decided improvement took place in the general condition, which the patient himself attributed to the daily dose for two months of a full teaspoonful of powdered eggshell, a remedy which he had heard of from an Englishman apparently a fellow sufferer from diabetes. Grube afterwards altered the treatment by substituting a powder in imitation of eggshells, which in 100 parts contain 93 parts calcium carbonate to $\frac{7}{10}$ of a part calcium phosphate and magnesium phosphate; 4 grammes of such a powder were taken daily. The same treatment—that is, eggshell or its imitation—was tried by Grube on a diabetic man, aged 30, whose father, brother, and sister had all died from diabetes. Unfortunately this patient caught influenza, and died of diabetic coma. In a patient, aged 41, with severe diabetes, the result was more satisfactory. Of Grube's 14 new cases, 11 were of the so-called "benign diabetes," and 3 of severe diabetes. In the 11 benign cases the treatment seems to have had no effect, either for good or bad, whereas in the 3 severe cases a decided improvement in the general condition followed the treatment. The subjective symptoms were alleviated, and the body weight was increased, although the actual glycosuria was not lessened, and although acetonuria persisted in all three cases. Grube has noted temporary improve in cases of severe diabetes, but never such a decided increase in the body weight, before he commenced the calcium treatment. He thinks that by this treatment there is hope that some cases of severe diabetes may be longer kept back from the cachectic stage of the disease.

Should One Sleep After Eating?

We would not now revert to this oft-discussed question to give any one's theoretical views or personal beliefs in the matter, or to bring forward the familiar argument that because animals sleep just after they have eaten, hence the human animal should do the same says the Medical Record. Dr. Schule, of Fribourg, (La Med. Mod., January 15, 1896,) has, however, approached the subject from the chemico-experimental side, and his results are worthy of record. Having analyzed the stomach's contents in two normal subjects a few hours after meals, some of which were followed by sleep and others not, he finds that sleep has for its constant effect the weakening of the stomach's motility and at the same time there is an increase in the acidity of the gastric juice. On the other hand, simple repose in the horizontal position stimulates the motive function of the stomach, but does not increase the acidity of gastric juice. Then conclusion is hence reached that, while one should stretch himself out for a rest in the horizontal decubitus after a hearty meal, he should resist the tempting Morpheus, especially if there be present a dilated state of the stomach or if its juices be hyperacid.—*Scientific American*.

Jenner's Instructions for Vaccine Inoculation.

"Let the vaccine fluid be taken for the purpose of inoculation from a pustule that is making its progress regularly and which possesses the true vaccine character, on any day from the fifth to the eighth, or even a day or two later, provided the efflorescence be not then formed around it. When the efflorescence is formed it is always most prudent to desist from taking any more of the virus from that pustule.

"To obtain the virus, let the edges of the pustule be gently punctured with a lancet in several points. It will gradually ooze out, and should be inserted upon the arm about midway between the shoulder and the elbow, either by means of a very slight scratch not exceeding the eighth part of an inch, or a very small oblique puncture.

"A little red spot will appear on the punctured part on the third day, if the operation succeed, which on the fourth or fifth becomes perceptibly vesicated. It goes on increasing till the tenth day, when it is generally surrounded by a rose coloured efflorescence, which remains nearly stationary for a day or two. The efflorescence then fades away, and the pustule is gradually converted into a hard, glossy scab, of a dark mahogany colour. These progressive stages of the pustules are commonly completed in sixteen or seventeen days.

"A single pustule is sufficient to secure the constitution from the small-pox; but as we are not always certain the puncture may take effect, it will be prudent to inoculate in both arms or to make two punctures in the same arm, about an inch and a half asunder, except in very early infancy, when there is a great susceptibility of local irritation.

"If the efflorescence surrounding the pustule should be extensive, and occasion much local heat upon the arm, it may be cooled by the repeated application of pieces of folded linen dipped in cold water, or still more expeditiously by a strong solution of the aqua lithargyri acetati in water—an ounce, for example, of the former in five or six of the latter.

"If the scab should at any time be prematurely rubbed off, and not succeeded by another within twenty-four hours, the part may by occasionally touched with the undiluted aqua lithargyri acetati.

"Vaccine virus, taken from a pustule and inserted immediately in its fluid state, is preferable to that which has been previously dried; but as it is not always practicable to obtain it in this state, we are compelled to seek for some mode of preserving it. Various means have been suggested, but from the test of long experience it may be asserted, that preserving it between two plates of glass is the most eligible. Let a piece of common window glass be cut into squares of about an inch each, so that they shall lie smooth when placed upon each other. Let the vaccine fluid be confined to a small spot (about the size of a split pea) upon the centre of one of these glasses, which should be suffered to dry in the common heat of the atmosphere, without exposure to the heat of fire or the sun. When dry it should be immediately secured by placing over it the other piece of glass. Nothing more is necessary for its preservation than wrapping it in clean writing paper.

"The virus, thus preserved, when wanted for the purpose of inoculation, may easily be resorted to its fluid state by dissolving it in a small portion of cold water, taken up on the point of a lancet. It may then be used in the same manner as when just taken from a pustule.

"The vaccine fluid is liable, from causes apparently trifling, to undergo a decomposition. In this state it sometimes produces what has been denominated the spurious pustule—that is, a pustule or in appearance on the arm not possessing the characteristic marks of the genuine pustule. Anomalies, assuming different forms, may be excited according to the qualities of the virus supplied, or the state of the person inoculated; but by far the most frequent variety or deviation from the perfect pustule is that which arrives at maturity and finishes its progress much within the time limited by the true. Its commencement is marked by a troublesome itching, and it throws out a premature efflorescence, sometimes extensive, but seldom circumscribed, or of so vivid a tint as that which surrounds the pustule completely organised; and (which is more characteristic of its degeneracy than the other symptoms) it appears more like a common festering produced by a thorn or any other extraneous body sticking in the skin than a pustule excited by the vaccine virus. It is generally of a straw-colour, and when punctured, instead of that colourless, transparent fluid of the perfect pustule, its contents are found to be opaque. That deviation from the common character of the pustule, arising from vaccine virus which has been previously exposed to a degree of heat capable of decomposing it, is very different. In this instance it begins with a creeping scab of a pale-brown or amber colour, making a long and slow progress, and sometimes going through its course without any perceptible efflorescence. Its edges are commonly elevated and afford on being punctured a limpid fluid.

"A little practice in vaccine inoculation, attentively conducted, impresses on the mind the perfect character of the vaccine pustule; therefore, when a deviation arises, of whatever kind it may be, common prudence points out the necessity of re-inoculation, first, with vaccine virus of the most active kind, and secondly, should this be ineffectual, with variolous virus. But if the constitution shows an insusceptibility of one it commonly does of the other.

"When any constitutional symptoms occur in inoculated cow-pox they are commonly first perceptible, especially in children, on the fourth or fifth day. They appear again, and sometimes in adults not unlike a mild attack from inoculated small-pox, on the eighth, ninth, or tenth day. The former arise from the general effects of the virus on the habit, the latter from the irritation of the pustule.

"If the effluvia of the small-pox have been received into the habit previously to the inoculation of the vaccine virus, the vaccine inoculation will not always be found to stop its progress, although the pustule may make its advances without interruption.

"The lancet used for inoculation should always be perfectly clean. After each puncture it is proper to dip it into water and wipe it dry. The practitioner should be particularly cautious in observing that its point be free from rust, either contracted by common means or from the action of the vaccine virus, which even when dry and in contact with it has a tendency in a little time to produce it.

"The preservation of vaccine virus upon a lancet beyond the period of a few days should never be attempted, as it is so apt to produce rust, which will decompose it."

The "X" rays have been found to exert a strong depilatory action without causing pain or other indications of disorder.

An Important Relation from a Therapeutic Standpoint.

By J. S. MOREMAN, M. D., Louisville, Ky.

There is a relation, which clinical experience has incidentally demonstrated, yet which has not yet generally received professional recognition. I refer to the effects produced by drugs which exert a cathartic and laxative action, in relieving cerebral hyperemia and affections to this cause. Of course in nearly all standard works on practical medicine remedies known to be cathartic are recommended, but I have yet to find in my therapeutical researches anything like an orderly treatise on the capabilities of these agents or the fitness of certain agents in any class of disease of the nervous system.

It is well established, however, that therapeutic agents which produce catharsis tend to dissipate cerebral hyperemia. This was long ago demonstrated by the older writers. McLeod's notes on the surgery of the Crimean war, are rich in references, demonstrating the value of cathartics in the treatment of injuries to the brain and its membranes. Some remarkable instances are given of cures resulting from the administration of very active cathartics where there were severe injuries to the brain. I can not here stop to quote from the author, but they are worthy of the closest study by all who desire to inform themselves on this very important subject.

Again an important relation is that which exists between the action of a purely harmless laxative on the alimentary tract and the digestive and assimilative functions. It is out of the range of ordinary clinical experience to witness derangement of the digestive function where there is regularity in the intestinal action. Of course there exists exceptions to this rule, but my own, and the experience of the most careful clinicians go to show in the greatest number of cases where we have indigestion, we have constipation as a factor which has persisted for some time, and which has been a source of trouble to the patient. The action of a well selected laxative, one which in its actions tend to produce free motions, without leaving constipation or hemorrhoids or other bad effects in its train will materially assist us in overcoming these cases of failure of the digestive function. Irritability, melancholy, bad complexion, a revolting breath and impaired appetite, headache, and I might add a great many other afflictions which are generally classed as minor disorders, owe their origin to the fact that secretions have not received attention; that is, the patient has not been given a proper or appropriate laxative.

Any appropriate laxative should be one which will act painlessly and promptly on the bowels, and which should have tonic virtues besides. There may arise the question is such an agent at our professional disposal? I believe that the therapeutic resources of this period afford an agent which meets this demand. But let me return to the main subject. If we follow the relation already spoken of we will be able to relieve not only the constipation present, but we greatly stimulate the secretions and tend to produce a general systematic toxicity which will be of the greatest value in releasing as it were our patient from hepatic congestion which in itself is a barrier to progress toward physical emancipation. In my opinion no more important issue meets the physician than the one which I have outlined here, that of recognizing the important relation between the secretions and the function of other organs of the body.

The leading writers on medicine recognize and teach this principle. In the treatment of congestion of the brain and many forms of headache they prescribe purgatives and laxatives with confidence. Also in indigestion due to constipation they commonly use those agents which relieve constipation. By the leading teachers of a generation ago the chief reliance to relieve dyspepsia and headache was a laxative of known value. Now there are a great many laxatives and purgative agents known to the profession, and which will be the safest and most available is a pertinent question. Every physician has his favorite in this as well. Phosphate of sodium is a good laxative and containing phosphorous makes it not only an applicable cathartic, but also a tonic of power applicable in nervous diseases. In cases where a tonic is required to repair a nervous breakdown, as neurasthenia and impotence, it is a valuable agent, with which we can hope to attain desirable results.

A preparation containing in every fluid drachm eighty-five grains of combined sodium phosphate, citric acid and sodiumbicarbonate in an agreeable solution friendly chemically to these salts answers for a means of the administration of such a laxative as we have in this article endeavored to point out as fitting in establishing the relation which is potent as a means of dissipating disease producing agencies. Nothing is so important as the exhibition of a pure dry drug in an eligible agreeable form.

Melachol is of the formula above given, and I have employed it to bring about the ends desirable and comprehended in this relation. It has been used by me in a great many cases to produce the desired results in such affections as indigestion, headache, biliousness, constipation, cerebral congestion of mild type and as a nervous tonic. I shall give a few cases.

Mrs. L. H. C——, suffered greatly with constipation. She frequently went four to six days without an operation. She had an offensive breath, sallow complexion, her appetite was poor, she constantly felt weak and debilitated. She was given also to attacks of headache. She told me she never passed a day without an attack of headache. In order to secure an action of her bowels she frequently had to take four or five compound cathartic pills. She was put on Melachol in doses of tablespoonful before each meal and on going to bed. After using it in this manner for two days her bowels acted without producing pain. She felt brighter and more buoyant than she had for some time. I now directed her to take one teaspoonful of Melachol in half a glass of water on retiring at night. This soon relieved her constipation, and she felt stronger and regained her appetite. She was advised to use Melachol several months. She is now in excellent health. In the treatment of this case the patient's diet was carefully regulated so that she would eat fruits and those articles of diet which produce intestinal debris.

L. B. A. M——, had for years been a sufferer with indigestion, constipation and headache. This he said constantly annoyed him, and to a degree unfitted him for his business. I prescribed Melachol in half teaspoonful doses to be taken during meals. He was to try the remedy one week and to report to me at the office. At the end of this time he had improved materially and his head had not ached much and his bowels had acted several times without resorting to the use of the syringe as had been a custom with him for a long time. After continued use of Melachol for several weeks he was entirely recovered.

Mr. A. M.—, had been constipated and neurasthenic for a long time. He asked for treatment for constipation and impotence. He was given Melachol in teaspoonful doses. This acted happily and relieved him of his constipation, and his powers regained their former tonicity.

The Effects of Cycling on the Nervous System.

In cases of breakdown of the nervous system from overwork and anxiety, cycling will, Dr. Turner says, be found a most valuable adjunct to the rest which is necessary for recovery, and numerous brain workers now consider a daily ride indispensable if their work is to remain at concert pitch. In the anæmia of young girls, whether associated with constipation or not, steel in the form of the wheel is even more effectual than as "drops," and the action of the flat muscles of the abdominal walls on the subjacent organs being much increased by the movements necessary to retain the balance and drive the machine, has a marked effect as an adjunct to other treatment in cases of obstinate constipation.

Within the experience of the writer many sufferers from sick headache, neuralgia, and hysteria, both male and female, have reaped much benefit from regulated cycle riding, and many cases of so-called palpitation have been cured.

Lastly, insomnia has frequently been found to yield to the proper use of the bicycle when every other soporific had been defied, and many cases of persistent nocturnal cramp have been relieved.

It is necessary, however, again to warn everyone who is not an experienced rider against the abuse of this fascinating exercise. Though much good be done in very many cases of inorganic ailment, it is possible also to do much harm. The young and growing especially have need of caution.

The writer has seen several healthy young girls quite broken down for a time by riding too far and too fast while still unfit, from lack of practice, for any really hard exertion. It behooves every physician who may have to recommend the cycle as a means of cure, or allow its use as an exercise and recreation, to put this matter clearly before those who may ask his advice, and make them thoroughly understand that though great good may be derived from the use, great harm may come from the abuse of what is, after all, only a new form of exercise. The importance of this warning must excuse its repetition.

Vanilla Poisoning.

The symptoms of poisoning by vanilla, which may be brought about either by eating of it immoderately or by working in it, are, in some respects, similar to those produced by benzine and turpentine; in others they resemble those of petroleum, methylic alcohol, etc.; but in regard to its action upon the genital and visual organs, vanilla is considered by Guerin to be unique. Erosions of conjunctiva and skin of the lids give a means of entrance for the corrosive oil contained in vanilla. A sensation of weight and pain in the eye and gradually increasing feebleness of vision are cardinal symptoms which are found to be accompanied by a form of choroido-retinitis.—*Lancet*.

Eberth's Bacillus and Typhoid Fever.

Revilliod (London Lancet) agrees with Chantemesse's definition of typhoid fever as "a general disease caused by the reaction of the organism attacked by the typhoid bacillus." Therefore, if the presence of Eberth's bacillus is proved, it is pathognomonic of typhoid fever, even if the clinical signs are against this diagnosis. Details are given of two such cases. (1) Girl, aged 17. Admitted to hospital, December 28th, 1895, discharged March 28th, 1896. Had become pale, and the urine had been noticed to be dark for some weeks. On admission there were no abdominal symptoms except splashing over the stomach, and slightly enlarged spleen. Urine was rose to coffee-coloured. Red corpuscles and granular casts were seen by the microscope. Urea 18.5 per 1,000. Albumen 0.25 per 1,000 to 5, which latter proportion existed at the end of the twelfth week. From January 20th to end of February pus was present also. Temperature was hectic; never above 102.75° F., and after the end of the sixth week of disease apyrexial, with one or two exceptions. The onset of disease was apparently on December 25th, with severe headache and vomiting, followed by a rigor. The headache was possibly migraine, to which she was subject, and quickly went, but the vomiting continued to the seventh week of illness. Epistaxis occurred twice during fourth week. She was constipated at first, but diarrhoea followed purgatives. Great emaciation and asthenia. No typhoid facies or nervous complications. At the end of the fifth week phlegmasia alba dolens began in the left leg, coincidently with the pus in urine. At the same time it was discovered that the right kidney was enlarged. The diagnosis then made was enlarged movable kidney with dilatation of stomach. At the beginning of the fifth week (January 23rd) a subcutaneous injection of 1 g. of turpentine was given, with a view to produce an abscess. From February 14th the swelling of kidney and leg began to subside, and the patient was convalescent on February 27th, the improvement coinciding with the formation of local abscess. In April there was no trace of albumen. (2) Boy, aged 9. Sudden onset on November 20th, 1894, with headache and nausea. November 22nd, epistaxis; 24th, temperature 104° F., diarrhoea; 26th, admitted to hospital. On sixth day of disease patient had characteristic appearance of meningitis with cries, retracted abdomen, stupor, etc. No symptoms of typhoid fever, but the state of the spleen was not noted. Pulse 150; temperature very irregular and not characteristic. As patient was going from bad to worse, a subcutaneous injection of turpentine was given on November 28th. This had no effect, so another was given on December 2nd. Then improvement set in. As the meningitis disappeared, general œdema with ascites and synovitis without albuminuria began. Rapid emaciation. Convalescence established at end of January, 1895, and patient went out cured. On December 29th the abscess resulting from the turpentine was incised, and the pus examined bacteriologically by D'Espine, who obtained pure cultivations of Eberth's bacillus. The only point clinically against a diagnosis of tuberculous meningitis and peritonitis was the favourable termination. The conception of disease caused by Eberth's bacillus must be enlarged, as the clinical manifestations may vary, as they do in disorders caused by pneumococcus and streptococcus. Revilliod believes the bacillus in the above cases were localised in the kidney and meninges respectively. Abscesses caused by turpentine in-

jections up till now have proved sterile, but while some micro-organisms—for example, pneumococcus—are destroyed. Eberth's bacillus is resistant to turpentine. They are evidently a most important aid to diagnosis in doubtful cases, but, before all, their aim is therapeutical, especially when pus is being formed, and it was on this hypothesis that they were given in these cases. However, the author attributes their recovery greatly to Fochier's abscesses.

Treatment of Progressive Muscular Atrophy by Gymnastic Exercises.

Wiener reports a case of progressive muscular atrophy in which treatment by a course of gymnastic exercises was adopted. The patient was a man, aged 20, and had been affected with the disease for one year. The affection was of the facio-scapulo-humeral type. There was difficulty in raising the arms and in walking, and lordosis was marked. The usual electrical treatment was tried without improvement. Then a course of carefully planned gymnastic exercises was commenced. After two months the patient could raise his arm well, the gait was improving, the lordosis was less, and now almost any ordinary movement can be accomplished; only some slight difficulty in going upstairs remains. The condition of the muscles has visibly improved, and it is noteworthy that the muscles which have not been specially exercised, for example, those of the face and tongue, remain wasted as before. The writer considers that the methodical use of muscular movements, such as the Swedish exercises, is likely to be followed by great improvement in such cases: but it is pointed out that such good results can hardly be expected where the disease has begun in early childhood, as in these cases there is probably some inherent defect in the muscles themselves.

The Principles of Dietetics.

Uffelmann has recently published a paper with this title. The following is a few of the things he lays stress upon:

In order that a diet should prove of value, both the nature of the disease and the individual himself requires to be considered. For instance, no one would give the same diet for all cases of pneumonia or all cases of typhoid, but would endeavor to suit the individuality of the particular patient. Not only must the nature of the disease be studied, and, for example, irritating matter be avoided in gastric troubles, but of equal importance is the consideration of the individual himself. The patient's powers of digestion demand consideration, for the only nourishment which is of value to him is that which he can digest, a fact which is true irrespective of the nature of his disease. Of equal importance is the fact that particles of undigested food are more prone to irritate the sick than the healthy. Nor are the powers of digestion equally good in all patients, even in the same disease; there are some cases of typhoid who can digest fairly well, and others who are unable to digest the simplest kinds of food. It, therefore, clearly becomes the physician's duty to study every case individually in this regard. The age of the patient has also to be considered; for instance, children are very sensitive to alcoholic stimulants, and are far less apt to die of heart failure than are adults. The

general nutritive condition, as well as the constitution of the patient, has also to be taken into account; a man who enters into disease from a state of perfect health, requires a different diet to one already run down. Tea and coffee should not be excluded in dieting patients accustomed to their effects unless they are especially contra-indicated. Care is required in forbidding alcoholic stimulants to patients used to them. In making out a dietary it is the duty of the physician to individualize, in order to get the best results; to order a routine diet in all cases is unjust towards the patient. Just as the healthy, so the sick, can hardly dispense entirely with those foods which are taken merely for pleasure; they serve to give the food a certain relish, and at the same time bring more variety into the dietary. As a rule, it is best to give small meals, at short intervals; the temperature of the food should be about blood heat; being cooler, even cold, in fevers and in instability of the stomach, and hot where it is desired to excite.

Pathology of Addison's Disease.

Hansemann (The Clinical Journal) mentions that in only 88 per cent. of the cases clinically recognised as Addison's disease have diseased suprarenal bodies been found. Hence a primary lesion in the solar plexus, splanchnic nerves, spinal cord had been sought for, yet the lesions found in these structures have been so slight as hardly to be sufficient to account for Addison's disease, and they are even less constant than those found in the suprarenal bodies themselves. On the other hand these glands have been found quite destroyed without the appearance of Addison's disease. The author himself quotes a case in which they were entirely disorganised by secondary new growth without the symptom complex of the disease in question. Then there are cases of Addison's disease where the suprarenal bodies have been intact, but perhaps the changes in cells are hardly well enough known to speak with certainty on this point. The relation of Addison's disease to the suprarenals is very much the same as that of diabetes to the pancreas. A simple aplasia of the suprarenals has been known to occur where all the elements of the healthy gland are present, yet in too small a degree. This aplasia has a definite relation to defective development of other parts of the body, as the author has seen in 8 cases of anencephaly. There is never any trace of Addison's disease in this aplasia. The author records a remarkable case of Addison's disease in which the suprarenals were about the usual size, yet the cortical substance of the glands was proved both by the naked eye and microscope to be absent. There was some evidence of a slight inflammatory lesion present, yet it could not be determined with certainty whether the changes were the result of a progressive pathological process or of a defective development. No lesion was found in the solar plexus, etc., and there were no changes in the rest of the body. Here the absence of the cortical substance in the suprarenals must have been the direct cause of Addison's disease.

The working men of Birmingham, England, have endowed the hospitals of that city with a sum amounting to nearly \$2,000,000. In this good work they stand alone, no other city working population having done so.

Phantom Tumours.

Patients are apt to imagine that almost every disease of the breast is cancerous, and accordingly you will find that the fears and horrors of cancer haunt those who suffer from the knots and lumps of mastitis or abscess, or such harmless growths as the simple adenomata. These can hardly be called imaginary diseases, yet now and then in practice you will meet with cases of real imaginary disease "phantom tumours" about the breast. Some of them are really due to slight mastitis with excessive nerve pains, some to natural prominences as a costal cartilage, and others to a curious contraction of the pectoral muscle. Regarding all such cases the neuralgic symptoms, the tenderness, hyperæsthesia, and bitter complaints of pain by the patients are far in excess of what would really obtain in early cancer. Moreover, often enough a suggestion of cancer has in some powerful way been pressed upon the mind of the individual. She has had a tumour removed from some other part, or a relation or friend has died of breast cancer, and she has thought or read much about the disease. You must carefully estimate the mental condition, and as regards the rule of diagnosing imaginary affections from carcinoma, you have only to observe that no true tumour exists. It may be needful to examine such a case under anæsthetics, and then a curious contraction of the pectoral muscle which some of these persons exhibit will quite fade away and disappear under your examining touch.

Local Anæsthesia by Schleich's Method.

According to the British Medical Journal, the plan of infiltrating tissues with anæsthetic solutions has, after some years' trial, proved valuable in cases unsuited for general anæsthesia. Schleich employs three solutions. The first, used for inflamed or hypersensitive areas, contains 3 gr. of cocaine hydrochlorate, $\frac{1}{3}$ gr. of morphine hydrochlorate, 3 gr. of sodium chloride, in 3 ounces of distilled water. The second or routine solution contains the same ingredients but only $1\frac{1}{2}$ gr. of cocaine. The third solution, used for infiltrating healthy skin or mucous membrane, contain $\frac{1}{6}$ gr. of cocain hydrochlorate and $\frac{1}{12}$ gr. of morphine hydrochlorate. In each case the solution is sterilised, and $\mathfrak{M}$ ij of a 5 per cent. carbolic acid solution are added. An ordinary hypodermic syringe may be used, if properly sterilised and fitted with very fine needles.

Next the whole area of skin is cleansed and rendered aseptic, and when numbered by the ether spray, or in the case of the mucous membrane brushed over with 10 per cent. carbolic acid to numb it, the integument is punctured, the needle being pushed slowly into the layers, being carefully kept parallel to the surface until the bevelled edge is covered. The initial punctures must all be endermic. A few drops of solution are expressed until a white wheal forms. Into the periphery of this the succeeding injections are made until the lime of proposed incision is rendered œdematous. One syringe is required for three or four centimetres' length of tissue. The area to be occupied by the sutures may be infiltrated at once or at the close of the operation, according to its duration, as the anæsthesia only lasts about twenty minutes. As soon as the anæsthetic œdema has developed, the incisions can be made, or the deep tissues, for example, fasciæ, periosteum, etc., may be anæsthetised through

the skin. When, however, these structures lie remote from the surface, it is best to incise and cautiously inject the deeper layers through the superficial. When the tissues are dense, considerable pressure is necessary to get the solution to infiltrate them.

Intraperiosteal injection in most cases renders bones anæsthetic, but Schleich recommends, when inflammatory bone diseases exists, that a small hole be chiselled through the compact substance, and the medulla infiltrated through this. When large nerve trunks are exposed their sheath may be infiltrated, or if this measure is deemed inadvisable, they may be painted with a 5 per cent. solution of carbolic acid, or a little of this may be injected. After the skin incisions are made the divided tissues are held apart and the deeper ones infiltrated directly, as occasion requires. The anæsthesia produced lasts about twenty minutes, and hence fresh infiltration is necessary if the operation is prolonged. Hæmorrhage is said to be lessened by the œdema, but if in picking up arteries nerve twigs are nipped, pain can be prevented by touching the spot with 5 per cent. carbolic acid solution. In infiltrating inflamed areas the injection is commenced wide of the focus, but primary injection into an abscess or phlegmon is to be avoided, as it produces increased tension and does not lessen pain. Deep abscesses are infiltrated by gradually rendering the superficial parts œdematous, then incising, and again infiltrating until the part is reached.

Massage.

The immediate effect of all the forms of massage is to raise the blood pressure and to enlarge the calibre of the artery. This preliminary stage is maintained for some time while the more superficial and vibratory manipulations are being employed; but it is very transitory indeed when that form of massage is applied which freely moves the muscular tissue, and is quickly followed by a very decided and sharp reduction of the radial calibre.

From this it would seem probable that the first effect of massage in its various forms—and an effect which is, moreover, maintained throughout the application of the superficial and vibratory manipulations when limited in duration—is to induce vasomotor contraction in the terminal vessels, and thus to raise the blood pressure and the calibre in the intermediate arterial tubing between them and the heart. This may, therefore, be regarded as the vasomotor tonic aspect of massage when that process assumes the forms of stroking, vibration, and percussion, which therefore raise arterial tension. When, however, the muscular tissue is freely manipulated and rolled the vessels therein dilate, and the flow of blood through them is increased and accelerated by the rapid manipulations acting in the manner of a supplementary heart, and the blood pressure and calibre of the radial and other systemic arteries fall. This is the vasomotor relaxant effect of massage which reduces arterial tension. When the muscles of all the limbs are manipulated the radial calibre and pressure fall. There may be perceived a larger ictus after the manipulation, but it is unsafe to infer therefrom that the radial calibre is increased; for arteriometric measurement has shown that when the pulse tension is reduced the pulse stroke generally feels larger through the calibre of the vessel is actually diminished.

Cycling in Valvular Disease of the Heart.

It is evident that all persons who suffer from lesions of the aortic valves should not be allowed to ride a wheel. The risk that any extra strain thrown on the damaged organ might be followed by most serious consequences is too great to be incurred. With regard to uncomplicated mitral disease, experience teaches that in a large number of cases actual benefit has resulted from a mild course, of cycling exercise.

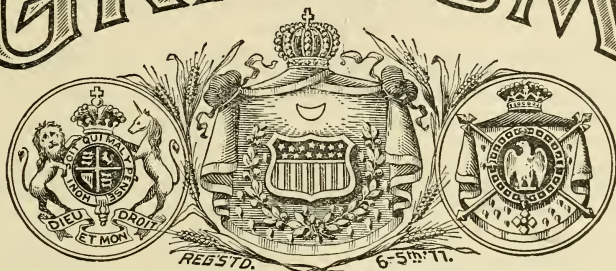
In giving advice on this matter, the fact must always be borne in mind, namely, that the force necessary to propel the weight of the body on wheels is very much less than that which is required to carry it on its own legs; and that to ride four miles on a cycle is a far smaller tax on the circulatory and muscular systems than to walk one. If a sufferer from mitral incompetence in its early stages be allowed and encouraged to take gentle and regular exercise on either a bicycle or light tricycle, he will maintain his general health in better condition, and at the same time give the heart muscle that amount of work which is necessary to prevent degeneration of its tissue, and thus retard dilatation of the cardiac cavities. It must, of course, be a rigid law in such cases that no hill be ridden under any circumstances, and no speed attempted. Breathlessness must never be produced, and no ride attempted until $1\frac{1}{2}$ hour after a meal. Under such a *regime*, great and lasting improvement has been observed in many persons, but of course each case must be judged by its surroundings and on its merits, and leave given or withheld as seems good to the medical adviser. With respect to tricuspid mischief, no actual experience has been put on record, but it appears theoretically the wiser course not to experiment, but to carry on the treatment on the old lines. It is superfluous to point out that where aneurysm exists or when symptoms of angina are present, the bicycle must be "tabu," and that if the arteries show signs of atheroma, the greatest caution must be inculcated, and in all cases of doubt the exercise forbidden.

Transmission of Typhoid Fever by Oysters.

Chantemesse (Clinic) reported that at l'Herault, where there had been no typhoid fever for about a year, a merchant received from Cette on February 15th a basket of oysters, which were sold, and eaten raw by 14 persons, all of whom were afterwards ill, 8 with such slight symptoms as vomiting diarrhoea, and general *malaise* only, but 4 with putrid dysenteric stools, while the remaining 2—a girl aged 20 and a young man aged 21—had typhoid fever of an exceptionally severe type, which in the case of the girl was fatal. Of the people dwelling in the same houses as these 14, no one who had not eaten these oysters was sick. Chantemesse has since examined oysters from various sources; all contained germs, and a good many the *B. coli*. Some placed for twenty-four hours alive in sea water intentionally fouled by typhoid dejections, and kept for twenty-four hours longer shut up (an ordinary interval between the oyster bed and consumption), were found alive and of good appearance, without any peculiar smell; but bacteriological examination showed both in the oyster and in their liquor both the *B. coli* and the *B. typhi abdominalis* (Eberth's bacillus).

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Effects of Right-handedness on the Sternum.

Comparatively few sterna are symmetrical, and the asymmetry is due to the more frequent use of the right upper limb. On consideration, however, it would appear that the ordinary fine and skilled movements for which the right hand was specially and habitually used, would produce little effect on the sternum, while the frequent use of one particular limb for carrying heavy weights or for similar laborious work would probably influence the symmetry of the bone to some extent. On examining a number of sterna, the conditions which could be attributed to the more frequent use of one limb are (1) a depression of the clavicular facet on the manubrium, sometimes very distinct, generally fairly marked on the right side in about 66 per cent., on the left side in about 26 per cent., and absent in about 8 per cent.; (2) an apparent compression from above down on one side of the manubrium with a reduction in its vertical depth, present on the two sides in the same proportion as the preceding; (3) a reduction of the interval between the first and second costal cartilages present on the right side in nearly half the specimens, on the left side rarely. In addition the clavicular facets look more strongly backwards on one side, usually the right, and in several bones the axis of the sternum was covered, the convexity looking to the left. The curve is most marked in the lower portion of the bone, as if this part were pushed to the left by the pressure of the lower right ribs.

HEADQUARTERS MICHIGAN MILITARY ACADEMY,
Orchard Lake, Mich., June 2, 1896.

Messrs. F. Stearns & Co., Detroit, Mich.:

Gentlemen;—I have the honor to report for your information some observations in regard to the effects of the Kola nut and the liquid preparation (Kola-Stearns) furnished by you for a forced march by a company of cadets from the Michigan Military Academy at Orchard Lake, Mich., to Detroit, Mich., on Saturday, May 23, 1896.

A company of forty-one cadets from the academy left Orchard Lake at 4:52 a. m. and reached the Russell House, Detroit, at 12:05 p. m., being seven hours and thirteen minutes marching the entire distance of twenty eight miles, including rests and twenty-five minutes for lunch.

The actual marching time was six hours and twelve minutes, and the distance as twice measured by a cyclometer is 28.07 miles, or at the rate of 4.53 miles per hour while marching—a very remarkable record.

Before starting I gave to one-half of the company the Kola nut; to the other half the liquid preparation (Kola-Stearns). I am convinced that the effect of the nut and your liquid preparation is to stimulate the muscles and permit of sustained exertion, while it allays thirst and hunger. The company felt comparatively well after the trip with the exception of some stiffness and sore feet; but they soon recuperated, and no protracted effects of the long march were noticeable.

This was my first experience with the Kola, and while I could not observe its effects on individuals as closely as I desired, I am of the opinion that it will find favor with those undergoing great physical exertion.

Yours truly,

FRED A. SMITH,
Captain 12th Infantry, Bommandant of Cadets.

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LISTERINE.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power and of positive originality.

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A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

DESCRIPTIVE LITERATURE UPON APPLICATION.

LAMBERT PHARMACAL CO., ST. LOUIS.

Relation of the Physician to Sanitary Science.

Dr. William Elmer, of Trinton, N. Y., says: "Statistics of our large cities show that about one-half of all deaths occurring are in children under five years of age, and a large percentage of these deaths takes place during the heated term, being attributed to cholera infantum. This waste of life in its early period is unnatural, and it should be inquired into, and as far as practicable removed. Crowded, badly ventilated, and poorly drained apartments, vitiated food, milk supply, hereditary diseases, and want of maternal care are the principal factors in the death rate of the slums of cities. The law compelling vaccination should be rigidly enforced and a school record of it should be kept. The teachers should know the early symptoms of communicable diseases and take suitable measures for protection. School authorities, in connection with local boards of health, can do much towards decreasing the spread of contagious diseases. 'Educate the people,' is the watchword of sanitary science, and the schoolroom is the place for its beginning. Filtration of the water supply of our large cities is a matter of importance that cannot be overestimated. Filtration is of greater importance than the purity of the source. The process of filtration is now being planned for Cincinnati. That the result will greatly diminish the prevalence of typhoid fever and acute intestinal diseases is unquestioned, as is shown by the statistics of certain European cities.

"According to Rochard, the economic value of an individual is what he has cost his family, the community, or the State, for his living, development, and education until he reaches the age when he can restore it by his own labor. This valuation has been variously estimated by different investigators. Chadwick, of England, considers a laborer equal to a permanent deposit of about \$980. Farr gives about \$780 as the average of value of each human life. F. F. Smith places the loss to a community by a death from typhoid fever at \$2,000, and, with this as a basis, Professor Mason, of Rensselaer Polytechnic Institute of Troy, in a recently issued book, estimates the yearly loss to a city of one thousand inhabitants, where there are seventy-five deaths from typhoid fever (estimating ten cases to one death) as nearly \$200,000." A pure water supply would prevent all this.

Blood Changes in Anæmia.

Sophie v. Moraczewska records (Clinic) the results of the examination of the blood in a number of diseased states characterized by anæmia. In these observations the specific gravity, alkalinity, the amount of solid substance, number of corpuscles, and percentage of hæmoglobin were determined. These observations show that in pernicious anæmia the alkalinity of the blood is markedly diminished; the specific gravity is high, the number of blood corpuscles very small, the red corpuscles contain an excess of colouring matter, and the nitrogenous materials increased. Chlorosis is characterised by diminished alkalinity and high specific gravity of the blood, and by numerous blood corpuscles containing little hæmoglobin. In cases of carcinoma the alkalinity of the blood is high, the specific gravity diminished, the blood corpuscles are relatively numerous but contain little colouring matter, and the amount of dry substance is small.

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Regulating Nutrition and Waste.

ANTILITHIC—A Solvent of Uric Acid.

ANALGÆSIC—A Solvent of Pathogenic Nerve environment.

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Dose and Administration:

Half a teaspoonful in water three times a day, either before, after, or between meals.

FORMULA :

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Sodium Iodide,..... gr. ij

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Suspended in a normal physiological relation.

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All Pigmentary diseases of the skin yield to its physiological action, and it preserves the perfect integrity of relation by simple physiological processes.

It is positively indicated, and established by the severest medical tests, to be permanently effective in Albuminuria, Nerve Waste, or Neurasthenia, all Glandular Disorders, Impotence, General Debility, Headache, Melancholia, Dizziness, Alcoholic Neuroses, and all troubles dependent upon arrests of function in the trophic or Nutritive Nerve centres, **AND ESPECIALLY RELIABLE AS A PAINLESS CURE OF THE**

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representing as it does the full therapeutic power of inorganic therapy as known in the organism will be fully met by MELACHOL.

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Appendicitis.

Dr. Buchanan, of Pittsburg, at a recent meeting of the Pennsylvania State Medical Society, read a paper on this subject. He says :

The divergence of opinion as to treatment of appendicitis increases the responsibility of the attendant. The expectant treatment is fraught with anxiety. Drugs have no place here. Opium only covers up the symptoms. Purgatives may do worse. With rest, diet, nursing and abstinence from drugging, many do recover. Who is to assure safety? Perforation may convert the case into a hopeless one. It seems that the course of greatest safety is to remove the appendix early. Consent early is difficult to obtain, especially if a mild case. Still if the period of primary operation has passed, and an exudate has formed with an abscess of considerable size at its center, the operation becomes a matter for grave consideration. The gravity now depends on the position of the adhesions. If the appendix can be reached without opening the peritoneal cavity it is safe. If the cavity has to be reached and drained across this serous sac, the operation is hazardous, and often fatal. Many have no hesitation in dealing with such abscesses across the peritoneal cavity, protecting it with gauze packing. However skillful, the fact remains such are often followed by septic peritonitis and death. With the present technique, it is more prudent to attack these abscesses at a point where adhesions have probably occurred. Whether the appendix should always be sought and removed after evacuation of the abscess has caused much discussion ; but the conclusion of most is that if easily accessible, it should be removed, but if imbedded in the abscess wall and the removal would imperil the integrity of the latter and risk opening of the healthy peritoneum, it must be left alone. The most positive advance seems to be in the tendency to operate on cases of recurrent and chronic appendicitis between attacks. He insisted that two periods are when the removal is safe, in the very beginning and in the interval between attacks, and all cases seen at either period should at once be operated on, if the diagnosis is clear and consent is obtained.

A Curious Case of Epistaxis.

Danscher (British Medical Journal) records a case in which the patient, a healthy man of 48, of somewhat full habit, was suddenly attacked with bleeding from the left nostril. This was stopped by tamponade, but recurred next evening, when the left conjunctival sac was filled with blood. On clearing this out no cause could be seen for the hæmorrhage, until at last blood was observed issuing drop by drop from the aperture of the left lower lachrymal canal. On treating the epistaxis this bleeding ceased as well, but two days later a fresh recurrence took place, and was very severe, the blood trickling over the left cheek. The posterior nares were plugged by means of a Bellocq's sound, and on removing the tampon forty eight hours later no bleeding took place. Subsequent examination of the nostril and lachrymal apparatus revealed no new growth, nor, indeed, anything else abnormal. Dauscher has found no other case in the literature in which epistaxis was associated with the lachrymal canal so that the blood poured down the cheek.



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DYSPEPSIA, GASTRITIS, ULCER OF THE STOMACH, HEART-BURN, ACIDITY, — INFECTIOUS DISEASES OF THE ALIMENTARY TRACT.

Send for free 152-page book giving full information with endorsements of leading physicians. Physicians remitting express charges will receive free samples.

AVOID IMITATIONS.

Hydrozone is put up only in small, medium and large size bottles, bearing a red label, white letters, gold and blue border, with signature.

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Lesions in the Large Intestines in Typhoid Fever.

Henriot has investigated the subject of diagnosis and prognosis of cases of typhoid fever in which the lesions predominate or are confined to the large intestine, and he shows that when such is the case there is generally a series of symptoms which allow us to diagnose the situation of the lesion. Such cases are very rare. According to the author the following points may be observed: Diarrhœa is the most constant symptom, being profuse (eight or more times in the twenty-four hours), often fœtid, watery, and sometimes passed without the knowledge of the patient. Meteorism is an unreliable symptom, as it may occur in any case of enteric fever. Pain is very frequently found to extend along the colon, and pressure on the abdomen demonstrates its localization in the large intestine. According to Henriot, one of the most frequent characters of this variety of typhoid is the rapidity with which the patient takes on a cachectic, even a choleraic, appearance; becoming rapidly adynamic and delirious, while bedsores are extremely liable to supervene. The prognosis of these cases in which the ulcer affects the large intestine is very grave, the author quoting only two instances in which recovery took place. He believes that the cause of this high mortality is the frequent and severe diarrhœa.

Instead of putting foreign substance, "black salve," vaseline, ointment, or linament of any kind, upon a fresh cut, cleanse the wound, then tie it up neatly in its own blood.

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Damiana,.....	30 grs.	Coca.....	20 grs.
Ac. Phos. Dil.....	1 fl. drachm.	Saw Palmetto.....	20 grs.
Kola.....	20 grs.		

Dose—One to two teaspoonfuls three or four times a day.

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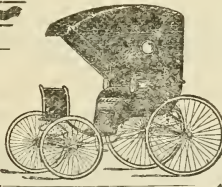
The Virginia Pharmacal Co.
RICHMOND, VA.

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It is said that Mme. Audriffred has given to the Paris Academy of Medicine a sum equivalent to \$160,000 on condition that the same be securely invested and the income be paid yearly to the man who discovers a specific remedy for consumption, whether a Frenchman or a foreigner, when it can be definitely decided that such a remedy has been discovered.

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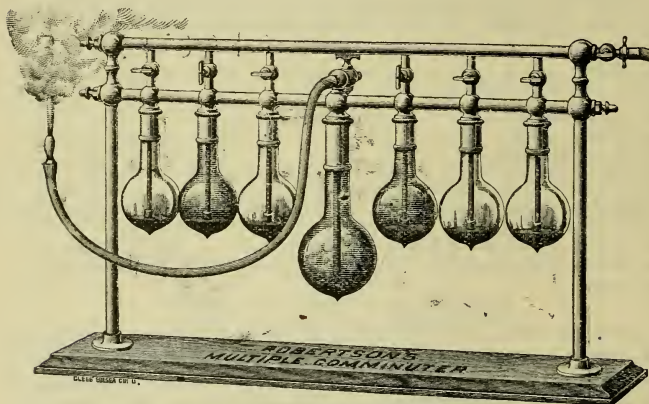
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The Ventilation of Churches.

A correspondent points out the evils which arise from the very defective ventilation provided in many churches, and especially draws attention to the bad habit of closing up every door and window as soon as one congregation has departed so as to keep the building "nice and warm" for the next. It is common to attribute to want of brilliancy in the preacher that drowsiness which steals over most people after an hour in church. This explanation may often be correct, but it is certain that the difficulty is frequently more the result of want of common sense in the verger than want of lucidity in the preacher. If churches are so badly planned that they cannot be properly ventilated while the congregation is within them, at least the windows might be opened and a thorough blow through ensured so soon as the congregation leaves.—*Edin. Med. Journal.*

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CAUTION. One of the best evidences of the value of an invention is the appearance of imitations and counterfeits. Thieves do not trouble themselves to steal worthless articles. During the past few months a number of unscrupulous persons have attempted to make and sell imitations of the Multiple Comminuter. Proceedings have been commenced and all infringers will be prosecuted to the full extent of the law. Physicians and dealers are cautioned against purchasing, selling, or using any imitation of this invention or any apparatus that appears to be genuine unless it bears our name. Our rights are fully protected by Letters Patent, granted to Dr. John Robertson, as follows: United States, Patent No. 549,822, Nov. 12, 1895; Canada, No. 51,610, March 10, 1898; France, No. 251,630, Nov. 12, 1895; Great Britain, No. 21,450, Nov. 12, 1895. Patents now pending in Germany.

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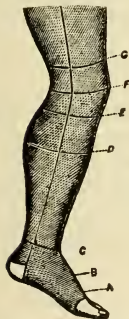
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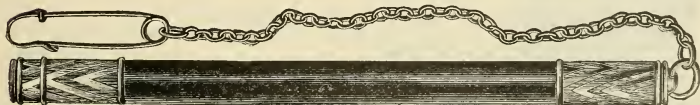
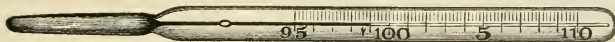
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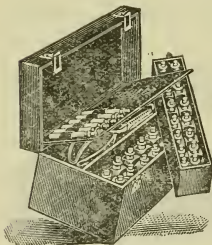
DR. T. J. DAVIDSON, *New Orleans, La., ex-President New Orleans Surgical and Medical Association*, says: "I have for several years prescribed Buffalo Lithia Water in all cases of Scarlet Fever, directing it to be drank *ad libitum*, with the effect of relieving all traces of Albumen in the urine, and have found it equally efficacious in all renal diseases requiring the use of alkaline water."

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Opposition to the use of antitoxin treatment for diphtheria has already taken an organized form in England. A deputation headed by Lord Coleridge, has protested to the authorities against its use in the hospitals, on the ground that "public money ought not to be devoted to experiments in psychology."



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The Charlotte Medical Journal.

VOL. IX.

CHARLOTTE, N. C., AUGUST, 1896.

No. 2.

Dental Cases in the Province of the General Surgeon.

By SINCLAIR TOUSEY, A. M., M. D.,
Surgeon in Chief, St. Bartholomew's Clinic; As-
sistant Surgeon, Roosevelt Hospital, Out-
Patient Department; late Instructor
in Clinical Surgery, New York
Post-Graduate Medical
School and Hospital.

The aim of the writer is to illustrate certain methods of treatment by selected cases from his own practice. The value of a working knowledge of this department of surgery is shown by the number of such cases applying at general surgical clinics. In New York, with about a dozen clinics exclusively for dentistry, I have, in the general surgical clinic at St. Bartholomew's, extracted something like 30 teeth a week for the last five years and have had a large number of operative cases such as necrosis. In other places, where perhaps there is not a single dental clinic, the surgeon, of course, must be prepared to care for these cases; and many an all round man in private practice would be amply repaid could he obtain a thorough training in this branch.

The extraction of Carious and Deciduous Teeth is the operation in which the surgeon will have the most frequent opportunity to display his skill. Only a dentist possesses the necessary implements, skill and patience to treat and fill teeth; and we are assuming that the circumstances of the patient are such that he cannot afford to have this done.

Nothing but an ordinary kitchen chair is necessary. Most of our dispensary patients receive no anæsthetic at all; a few are given nitrous oxide gas and a few have the gums frozen by ethyl chloride. The last mentioned is a very valuable and convenient local anæsthetic. It is sold in heavy glass tubes with a capillary nozzle through which a jet of this very volatile liquid is forced out by the vaporization caused by the heat of the hand. This is directed upon the part to be anæsthetized from a distance of about twelve inches. The rapid evaporation which takes place

after the liquid has moistened the skin produces a degree of cold sufficient to freeze even this very volatile liquid; and the moment a film of frost is seen on the skin we know that the superficial tissues are anæsthetized. This method makes the evulsion of a finger nail or the incision of an abscess entirely painless; and, where the gum can be reached by the spray, it makes the extraction of a tooth painless. I have been disappointed in the use of cocaine for this purpose.

For the extraction of any of the incisors a single pair of nearly straight, narrow rough-bladed forceps will answer. For the upper jaw counter-pressure must be made with the left hand behind the head so that the forceps may be pressed well up beneath the gums to thoroughly engage the tooth. For the lower teeth, the jaw should be supported by the left hand so that the instinctive wide-open fixation of the jaw may not result in a dislocation. The forceps embrace the tooth beyond the shoulder which marks the junction between the crown and the root. A straight pull in the direction of the long axis of the tooth is used; avoiding any marked lateral movement on account of the danger of breaking off the long straight root.

If only the root is present, or if the tooth is broken off in extraction, we proceed at once to extraction with the root-forceps. These are of a bayonet shape and have rather short, narrow smooth blades which meet at the points. The blades are pushed well up alongside the root until this can be grasped and withdrawn. An old neglected root is often quite loose and requires only a correct application of the forceps to effect its easy removal. Roots broken off in the extraction of a tooth are, on the other hand, firmly embedded and require a high grasp upon them with the forceps and a good strong pull.

It is unnecessary to describe in detail the removal of the different deciduous teeth. It is quite easy.

The canine teeth have a very long, straight root, firmly set in the jaw, and are removed exactly as are the incisors,

except that the forceps may properly be the somewhat wider ones sold as universal forceps. These have wider and shorter blades, with more of a curve, than those for the incisors. They may be used with perfect success for every tooth, upper and lower, except the incisors. An outfit consisting of an incisor forceps, a root forceps and a universal forceps could be made to answer for every case.

The molars and bicuspid are grasped with the universal forceps, the handles of which are to be held in the direction of the long axis of the tooth. In this way a very powerful leverage may be exerted alternately inward and outward before attempting traction upon the tooth. If, on the other hand, the handles are held nearly parallel with the jaw and we seek to obtain the leverage by a rotary motion at the wrist the power is quite inadequate. The same possibility of having to use the root forceps exists here, and if it occurs of course we have two or three or four separate roots to extract.

There is a special forceps, of a cow horn shape, which makes the successful extraction of the two anterior molars an extremely easy matter. The two strong, curved, pointed blades are pressed down into the sulcus between the roots of the tooth, and as the handles are compressed the tooth is forced upward by the two blades meeting beneath its body. Seldom is any traction at all required, and when it is it is very slight. But the great advantage is the avoidance of the danger of having the crown of the tooth break off, as it occasionally does in the grasp of any other kind of forceps. This advantage is so very great that only two days ago I told a patient to return some other day because the "cow-horn forceps" had been mislaid and the tooth, having hardly any crown, was sure to break off with the ordinary forceps.

The wisdom teeth, or last molars, have a conical root-mass, and if pains are taken to see that the blades of the universal forceps accurately engage this root-mass the extraction is very easy. A special effort should be made to do this, since if the crown is broken off the root is left so deeply embedded in the solid part of the jaw as to make removal quite a difficult matter. The socket of this tooth is hollowed out of the body of the jaw, not out of the alveolus.

Cases of Necrosis of the Jaw are seen

more often by the surgeon than by the dentist. They require the extraction of decayed and perhaps forgotten roots, curetting of the necrotic socket and of the sinus by which this communicates with the outside of the face; and finally disinfection with a saturated solution of permanganate of potash and packing with iodoform gauze.

CASE I was of this kind. Mr. B. had been treated for a week for a swelling of the neck, which had increased until for two days before I was called in he had been unable to swallow even liquids. The patient was stretched upon an ironing-board between two chairs, and an incision was made into the neck, just below the angle of the jaw. The patient's condition then did not warrant even an attempt to discover the cause of the abscess. Two months later, however, I administered ether, extracted the lower left wisdom tooth, and curetted the sinus in the neck and the necrotic socket of the tooth. The dentist who had filled this tooth was invited to be present at the operation, which took place at my office. He arrived ahead of time and asked, "Has Mr. B. come?" in rather a fierce tone of voice. I knew at once that he was prepared to dispute the connection between that tooth and the abscess and sinus. I pursued the even tenor of my way, and though, perhaps, he secretly hoped to see me fail on the extraction, everything went smoothly and in two weeks the patient was permanently cured.

CASE II was that of a young man who had had a running sore below the body of the jaw on each side for seven years. He had been treated in a variety of ways by "the best doctors in New York," and was finally sent to me with a request, from a former patient, that I give him a letter to the best skin specialist I knew. Fortunately for my own reputation I said that it would be necessary for me to examine the case before referring it to a specialist. I found on each side a sinus leading to dead bone and advised operation. This was done under ether at St. Bartholomew's, and I found old carbonized roots embedded in the jaw, necrotic bone around them, and on the right side a sinus passing completely through the jaw-bone itself, so that a probe passed into the tooth socket emerged beneath the chin. Thorough curetting and daily disinfection with permanganate of potash

and packing with iodoform gauze resulted in two weeks in complete closure of sinuses which had been open for seven years.

CASE III illustrates a somewhat different condition. The patient was a little girl who had had an abscess followed by necrosis of the jaw with sinus. The teeth and roots at fault had been extracted, but for some reason the necrotic bone had not been scraped away. When she came to the surgical clinic at Roosevelt Hospital I was able, under chloroform, to detach three or four clean white sequestra of the size of a finger nail and to push them out through the sinus. Prompt healing took place. This and one other case which is still under treatment, are the only cases, out of over a score, in which loose, separate sequestra were found.

I shall not enter in this paper upon the description of cases of extensive necrosis of the jaw requiring re-section or upon that of disease of the antrum.

Cases of Epulis usually require the removal by the curette of the granulation-tissue and softened bone which have taken the place of a tooth and subsequent treatment with nitrate of silver. They often give very little trouble.

CASE IV, Mr. T., sent me by an out-of-town dentist, was one of extensive epulis of the lower jaw following the removal of the molar teeth. A large mass of sensitive and bleeding granulation-tissue was present, and there was a sinus where an abscess had opened upon the outer surface of the cheek. In operating upon him under ether, at the Post-Graduate, I removed the large mass of granulation-tissue, and part of the jaw, with the curette and the rongeur-forceps. For a distance of about an inch and a half there was left only half an inch thickness of jaw, and all disease had apparently been removed. Iodoform packing was introduced, and at the first few dressings it was necessary to apply the Pacquelin cautery in order to prevent exuberant granulation in the cavity. This finally filled with firm healthy tissue, and the patient was discharged cured.

In every case of epulis the question of malignancy comes up; and in this particular case sarcoma would certainly have been generated if the entire disease had not been eradicated in the manner described.

Dentigerous Cysts are among the un-

common cases met with and must be dealt with most radically.

CASE V was a young man of about twenty who presented a swelling about quarter the size of a hen's egg at the side of the lower jaw close to its angle. This was also visible inside the mouth as a soft, fluctuating tumor of the lower jaw below the molar teeth, and between the jaw and the cheek. There was no wisdom tooth visible. Exploratory puncture showed the contents to be curd-like whitish fluid. An incision was made through the mucous membrane parallel and external to the jaw, and the cheesy contents were scraped out. The walls of the cyst were cut away so as to make an opening about two inches long by three quarters of an inch wide. The cavity was packed with iodoform gauze, and at the subsequent dressings swabbing with aromatic sulphuric acid was done to prevent the extreme tendency to the formation of pale, flabby exuberant granulations; the cavity being packed with gauze saturated with balsam of Peru. In about six weeks the cavity had entirely filled up and the swelling no longer showed on the outer surface of the cheek.

CASE VI was treated by Dr. William Carr, a prominent dentist of this city, who flattered me by asking my advice at various stages of the treatment. The special feature was that the swelling of the face was rather more persistent than in the other case. It seemed indeed as if a layer of new bone had formed in the cyst-wall. Curetting and the use of aromatic sulphuric acid, however, caused the absorption of the calcareous wall and then the swelling disappeared. The Doctor was especially successful in making a wide opening into the cyst so that there was never the least tendency for it to close up. The cavity was ultimately entirely obliterated.

Hemorrhage following the extraction of a tooth may be so alarming as to take the case out of the dentist's province and place it in that of the general surgeon. Not that the latter is necessarily better able to control it, but that he should be better able to deal with the constitutional effects of acute anæmia. A case in point is the following:

CASE VII was a gentleman about thirty years old, who had a tooth, lower molar, extracted by a dentist. It was doubtless badly decayed and broke a number of

times, so that the gums were much lacerated in attempts at extraction, and one root was left in. Just twenty-four hours later, very severe hemorrhage set in and, despite treatment by persulphate of iron, continued as a steady oozing until I was called in at the end of five days. I found the patient almost exsanguinated and with a mouth unutterably foul from decomposing clots formed by the persulphate of iron. Clearing away this mass, I could see a bright red stream welling up from the tooth-socket. I plugged this tightly with cotton and got all that part of the mouth dry and clean. Then I saturated a pledget of cotton with balsam of fir. Removing the cotton from the tooth-socket, the pledget with balsam was then packed tightly in and the hemorrhage was at an end for all time. A permanganate of potash mouth-wash, highly nutritious diet, and an iron tonic with occasional changes of the packing completed the cure. Six weeks later the remaining root was extracted with only the usual slight hemorrhage.

Cases like those enumerated above, from the more heroic methods of treatment required, seem to me to fall in the province of the general surgeon rather than to be referred to the more delicate manipulations of the dentist.

29 West 38th Street, New York.

A New Treatment of Phthisis.

By HUBBARD WINSLOW MITCHELL, M. D.,
New York.

Pulmonary Phthisis or Pulmonary Tuberculosis is a very wide spread disease. It occurs in persons of all ages, in all countries, and in every condition of life. It occurs in nearly every organ of the body, but this paper will refer only to that form which attacks the lungs and which is known as Acute Tuberculosis.

CAUSE.

The cause of Phthisis Pulmonalis is due to the introduction into the lungs of the tubercle bacillus. This bacillus is a short fine rod, slightly bent or curved, and often called the "bent rod of phthisis." Its average length is one-half the diameter of a red blood globule.

When the bacillus is treated with aniline dye or carbolic fuchsin it stains slowly of a bright red color, which color is per-

manent, and this character distinguishes it from other forms of bacteria, except perhaps the bacillus of leprosy. The tubercle bacillus multiplies with great rapidity in the lung tissue, and its mode of multiplying is by fission, or a rapid division of itself. They are discharged in great numbers in the sputum of persons suffering with phthisis.

The mode of infection is undoubtedly by inhalation of the bacillus from dried sputum, or from dust containing it floating in the air.

CONTAGION.

Accepting the theory that Phthisis Pulmonalis is due to the introduction into the lung of the tubercle bacillus from without, it will be seen that as the sputum from phthisis patients contains vast numbers of these bacilli, which are widely spread through dust and carelessness with which the sputum is voided, the danger from contagion is very evident, and it is undoubtedly true that the contagion of phthisis in this way is far greater than from inheritance.

THE INFLUENCE OF AGE.

Phthisis occurs at all periods of life, from the nursing infant to those tottering on the edge of the grave. In the young the lymphatic glands are more frequently affected, while in the old the lungs seem to be especially prone to the disease.

When the bacillus enters the tissue of the lungs it induces at once an inflammatory reaction and the formation of masses called tubercle, which quickly undergo caseation, and this process is caused, without doubt, by the bacillus. The tubercle is gradually converted into a yellowish gray pus in which bacilli are abundant, and this matter infiltrates the lungs, when it finally becomes loosened, and escapes into the smaller bronchi, from whence it is coughed up by the patient.

SYMPTOMS.

After the bacillus has entered the lung tissue the patient soon develops a cough, which is marked by sputum of a mucopurulent character. The cough gradually increases, the expectoration becomes more abundant, and emaciation soon follows. Loss of appetite, night sweats, diarrhoea, cardiac palpitation and rectal abscesses are among symptoms noticed. Auscultation reveals the true condition of the lungs. As the disease advances rales

are present which are mucous or purulent, and we have a bubbling coarse or fine rale, according to the intensity and extent of the disease.

As the disease advances cavities may form in the lung tissue. The temperature rises some times as high as 103, and is always a symptom of severity. The pulse is rapid and feeble.

DURATION OF THE DISEASE.

In my own experience the disease runs a course of from six to twelve months before death takes place without treatment, but under the treatment which I have adopted, and which will be described here, death has been postponed indefinitely, so that we cannot tell the exact duration of the disease while being treated.

DIAGNOSIS.

The presence of cough, emaciation, night sweats, diarrhœa, anorexia, thirst, and general anemia which are nearly always present, show the nature of the difficulty, but the unfailing test in the diagnosis is the presence of the bacillus in the sputum. When this microbe is found it is proof positive that the disease is Pulmonary Tuberculosis.

PROGNOSIS.

The prognosis of Phthisis when not modified by treatment is extremely fatal. No percentage of deaths can be given, but the death rate is always extremely high.

TREATMENT.

The treatment I have adopted in my own practice is the point to which I wish to call special attention. While experimenting in my private laboratory I discovered that the halogen group of salts when combined in nearly equal proportions, formed a fluid possessing extraordinary antiseptic powers. To this solution I subsequently added the hypochlorites of sodium and potassium and the resultant fluid was a chemical combination of the above named halogen group, namely Chlorine, Bromine and Iodine, which for want of a better name has been called after myself, namely, "Mitchell's Fluid."

For all ulcerative and suppurative processes this "Fluid" has proved itself extremely valuable when used externally. As Phthisis Pulmonalis is an ulcerative process in the lung tissue due to the

presence of tubercle bacilli, I began to use the "Fluid" internally, thinking it might act well in this disease, and subsequent experience has proved the correctness of my reasoning.

I give the "Fluid" in from two to three drachm doses clear, four times daily, *always on an empty stomach*. This is absolutely a *sine qua non*. I use a glass to measure the "Fluid" and not a metal spoon. In all cases whiskey is given one or two ounces at a dose, and two to three doses per day. The diet must be nutritious and liberal. I have found an animal diet, when borne is very valuable, but when meat cannot be taken, bovine acts especially well. Daily bathing, and rest as complete as possible, are also very necessary.

I examine the sputum of every patient once in ten days. These examinations are made by my friend, Dr. John Hoch, who strains the fresh sputum with carbolic fuchsin and methylene blue. The former stains the bacilli of a bright red, while the pus cells and other ingredients are stained blue by the methylene. The sputum thus stained is mounted on glass slides and a permanent record made of each. A diminution in the number of the bacilli and their final disappearance, shows that the patient is recovering.

The "Fluid" is made for me by Prof. John W. Higgins, of New York City, who has fitted his laboratory with proper chemical apparatus for the production of this valuable remedy.

447 Madison Avenue.

Clinical Observations upon the Use of Anti-Toxin in Diphtheria; and a Report of a Personal Investigation of this Treatment in the Principal Fever Hospitals of Europe, During the Summer of 1895.*

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Since Behring's treatment for diphtheria was proclaimed to the medical profession by Roux at the Buda Pesth Congress in

*Abstract by the author of a paper read before the New York Academy of Medicine, May 21, 1896, and a stenographic report of the discussion at the general meeting, held June 4, 1896.

1894, sufficient time has elapsed to warrant our taking a careful analytical review as to what has transpired with reference to it. Behring's antitoxin was given to the world as a specific against the toxins of the diphtheria bacillus. It has no action on the bacillus; this is not destroyed by the antitoxin; it is not rendered less virulent; it is in no way influenced by the treatment. Behring has told us that his remedy has no influence on the poisons of other bacilli. Diphtheria in man scarcely ever occurs from a pure infection by the Löffler bacillus. Almost invariably we find in addition to the specific diphtheria bacillus, streptococci, staphylococci, etc. The poisonous substances of the latter bacilli are in no way influenced by antitoxin. This fact limits very much the application of Behring's treatment to diphtheria in man. The toxin of Löffler's microbe causes the cardiac paralysis, the albuminuria and the paralytic phenomena. They were to be prevented by the neutralizing effect of antitoxin. If antitoxin is an antidote to the toxin of the Löffler microbe, cardiac depression, death from cardiac paralysis, albuminuria and post-diphtheritic paralysis should all be prevented by the action of this agent. It was to remedy these manifestations of the disease that Behring gave to the world his antitoxin.

Behring told us his treatment to be effective must be applied early in the disease. To get the maximum effect toxin and antitoxin must be applied at the same moment and at the same spot.

Armand Ruffer states that if you inject toxin on one side of the body, and antitoxin on the other side at the same time, 14 times as much is required to protect the animal; if there is a delay of one hour, 100 times as much is required to protect the animal, and if there is a delay of 11 hours, 5,000 times as much is required to protect the animal. In diphtheria in man, we can never apply the antitoxin at the site of infection, nor at the moment of infection. A period necessarily intervenes from the time of infection until there are sufficient symptoms to call attention to the illness; and as the result of this there is a great limitation to the application of Behring's remedy to diphtheria in man.

UNIFORM RESULTS MUST BE OBTAINED.—Another consideration of prime importance is: if we are to attribute the re-

ported decrease of mortality of diphtheria to the action of a specific, this decrease must be uniform and constant. There must be the same reduction in mortality in all parts of the world where the remedy is applied. For instance, a mortality of 8 per cent. in Paris and 28 per cent. in London does not mean that the low mortality in the former city is due to the treatment, but that it is due to a difference in the character of the epidemic, and that when Paris is visited by an epidemic of the same severity as the one that exists in London it will have the same mortality in spite of the treatment. Again, if there is at work but a single factor, viz., antitoxin, in the reduction of mortality, that reduction must be below the lowest mortality recorded in the natural history of the disease in any part of the world, and it must be steadily maintained below this rate in all parts of the world; otherwise, the variations in mortality may be said to be due to the epidemic character of the disease.

We find recorded the following divergencies in the deaths from diphtheria, owing to the differences in the type of the disease:

In New York in 1884.....	1,090
“ “ 1887.....	2,167
In Boston in 1891.....	232
“ “ 1894.....	317
In Philadelphia in 1888.....	350
“ “ 1889.....	375
“ “ 1892.....	1,425

This rule of uniformity of rules applies to reports by individual observers. If 100 physicians report 5,000 cases of diphtheria, treated with antitoxin, with a mortality of 5 per cent., and 10 physicians report 500 cases, treated with antitoxin, with a mortality of 59 per cent., the only logical conclusion is that there was a difference in the character of the cases in the two series, and that when the 100 physicians meet with a series of cases of the same type as those treated by the 10 physicians, they, too, will have a mortality of 50 per cent.

PERCENTAGE OF MORTALITY IS MISLEADING.—The most misleading part of the antitoxin literature is the constantly quoted percentage of mortality. For instance, the mortality from diphtheria in the city of Boston in 1895 was 14.48 per cent.; in 1893, 32.49 per cent., and yet there were 112 more deaths from diphtheria in the city of Boston in 1895 than there were in 1893. The percentage

mortality from diphtheria in the Boston City Hospital in 1893 was 48.44 per cent., and in 1895, 13.21 per cent., and yet we find that there were 203 deaths from diphtheria in the Boston City Hospital in 1893, and 207 deaths in 1895.

Boston City Hospital:

Year.	Cases.	Deaths.	Per Cent.
1893.....	419	203	48.44
1894.....	598	266	44.48
1895 (antitoxin)...	1,566	207	13.21

From the foregoing it is readily seen that the percentage mortality is not only misleading, but is absolutely worthless unless accompanied by the actual number of cases reported, and the actual number of deaths; and the report must also include a series of years in order to enable the reader to compare present results with the results in previous years when there was a mild type of the disease. Reports on the antitoxin treatment have ingeniously compared the years of highest mortality instead of including all years.

ANALYSIS OF RESULTS TO THE DAY OF THE DISEASE ON WHICH TREATMENT WAS BEGUN.—At the beginning of the antitoxin treatment Behring told us that all cases treated on the first day of the disease could be saved; of those coming under treatment on the second day, nearly all, and of those brought under treatment on the third day, the larger part of them. Behring's words were: "We have it in our hands to reduce the mortality from diphtheria to one-tenth of its former rate." Let us see how this promise of Behring's has been verified,

At the Willard Parker Hospital during the first nine months of 1895, the results were as follows:

	Cases.	Mortality.
First Day.....	108	10.09
Second Day.....	130	25.19
Third Day.....	116	34.19

A few cases may be cited showing actual results when treatment is begun in the earlier part of the disease:

CASE 1. Sixteen years old; admitted to scarlet fever ward February 1, 1896; recovered from scarlet fever and was ready for discharge. March 19th, at 11:30 a. m., she complained of sore throat. The diagnosis of diphtheria having been made by bacteriological examination, she was injected with 2,000 units of antitoxin—just 40 hours after the disease began. In spite of antitoxin, croupy symptoms, which manifested themselves early, increased, and intubation was done at 10 a.

m.—46½ hours after the beginning of her illness. On the evening of the same day, intubation not affording sufficient relief from the stenosis, tracheotomy was performed. Child died at 9:45 p. m.

In this case we have an instance of a child developing diphtheria in the hospital, being put upon serum treatment as soon as the diagnosis was confirmed. Notwithstanding this, the local process extended, even intubation not affording sufficient relief.

CASE 2. Aged 2½ years, admitted April 22, ill half a day. Throat clear, tonsils red and somewhat swollen, croup, some retraction, no cyanosis. Under the head of clinical notes we find: "Child rather croupy on admission." Antitoxin 2,000 units on admission. Patient admitted 22d of April about mid-day. April 23, 8:55 a. m., intubation became necessary; 2,000 more units antitoxin; temperature on admission, 100.8. April 23, temperature, 103.2; April 27, temperature, 99; April 28, temperature, 105; April 30, 101.6; afternoon of same day, 105.2. May 10, baby died at 2 25 a. m.

This is an extraordinary record. Child had been ill half a day on admission. Clinical notes state, "Child rather croupy on admission." About the only evidence of disease then was, as stated above, in spite of antitoxin 2,000 units, croup increased during the night, intubation became necessary the following day about twenty-one hours after admission. Next, observe the common temperature range which occurs when the patient shows unusual susceptibility to antitoxin.

CASE 5. Aged 2 years, admitted October 22, one day sick. Marked injection and swelling, dirty white membrane on left tonsil. Croup, prognosis doubtful. Antitoxin 2,000 units on admission. Admitted 9.30 a. m., intubation 4.15 p. m. October 23, antitoxin 2,000 units; 9.45 a. m., tube coughed up; 10.05 a. m., intubated, temperature, 2 p. m., 104.6. Hypodermics of brandy and nitroglycerine, hot bath, etc. October 24, antitoxin 1,200 units at 11.45 a. m.; temperature 104, sponging, etc. October 27, temperature 105, sponge baths nearly every hour. October 28, rash. October 29, tube removed. November 1, temperature went to 105. Sponging almost hourly. November 3, temperature, 105.8; sponge baths nearly every hour. November 5, 102 to 105. November 6, temper-

ature, 108.8; sponge baths constantly kept up. November 7, temperature, 101.2 to 106.2; sponge baths almost constantly. November 8, temperature, 102 to 106. November 9, patient died at 6.40 p. m.

Here we have a baby 2 years old, sick one day when admitted to the hospital. October 22, 9.30 a. m., given antitoxin immediately (in all 5,200 units), and the result is shown by the clinical history. If antitoxin has any possible effect in neutralizing the poison of diphtheria, in relieving or preventing stenosis or in any way allaying laryngeal symptoms, only a very small part of the clinical history here recorded would have manifested itself. There are several histories which show undoubted instances of the bad effects of antitoxin on nervous centers.

CASE 4. Child aged 4 months, admitted November 6; illness began November 3. Small patch of membrane on right tonsil; Klebs-Loeffler bacilli, no complication. Antitoxin 1,000 units on admission. November 9, slept at intervals quietly, but was very restless when awake. November 10, extremely restless most of the night. Temperature, 104. Sponge baths. November 12, pulse very weak. November 20, rash appeared. November 6, antitoxin 2,000 units 5.30 a. m., intubated at 1 p. m. Very restless during the day; 8.15 p. m., temperature, 106. Child failed to respond to stimulants. Temperature became more and more elevated, in spite of sponge bath. December 7, died at 12.30 a. m.

According to the record, this child had almost no illness on admission. It became restless after the first injection of 1,000 units of antitoxin. Restlessness reappeared in exaggerated form after injection of antitoxin of 2,000 units, along with high temperature and rapid respiration until death.

CASE 5. Child 7 months, admitted February 4, three days sick. Nothing in throat. Slight laryngeal symptoms. Clinical note states: "Slight croup, otherwise good condition." February 5, antitoxin 2,000 units. February 6, antitoxin 2,000 units; 4 a. m., temperature, 104.2. February 11, temperature suddenly rose and erythema appeared in patches over the body. Temperature in the evening reached 105.4. February 12, rash more marked since mid-night. Marked opisthotonos and stiff neck. February, 12, temperature 106 all night. February

13, glands and right side of neck swollen, temperature 104 to 106, until March 18; patient had convulsions during the night. March 19, child died 9 p. m.

CASE 6. Child aged 1 year, admitted October 13, three days sick, marked swelling and injection, no membrane, croup; intubated on admission. October 13, antitoxin 2,000 units. October 14, antitoxin 2,000 units. October 15, tube coughed up at 4.10 a. m., had to be reintubated at 8.30 a. m. October 15, tube coughed up at 10.30 a. m.; reintubated 12.30 p. m. October 16, tube coughed up at 7.10 a. m. October 19, temperature suddenly rose to 104; temperature remained high but somewhat fluctuating, until 21st, when it reached 105.4, and the baby had slight convulsions. In the afternoon respiration became very superficial, patient failed to respond to stimulants. October 21, died at 5.25 p. m.

CASE 7. Child aged 14 months, admitted February 20, five days sick. Rather thick patch on right tonsil, cry and breathing croupy, no retraction. "Patient admitted in croupy condition, not bad enough to require intubation, prognosis good." Antitoxin 2,000 units. February 21, antitoxin 2,000 units at 10.15 a. m. Intubated at 2.10 p. m.; 5.45 p. m. tube removed. February 22, 8.30 a. m., temperature, 104.5; 12 m., 105. Pulse, 184; respirations, 84; 11 p. m., temperature, 106.2; opisthotonos, plunge bath for ten minutes. February 23, temperature down, but still opisthotonos and great prostration. February 29, opisthotonos, eyes rolled up, with lids half closed when asleep. March 3 opisthotonos and rolled-up eyes. March 6, died at 8.15 p. m.

CASE 8. Child aged 3 years, admitted February 17, four days sick. Much membrane on either tonsil and in pillars of fauces. Nose plugged, prognosis doubtful. Antitoxin 2,000 units on admission. February 18, antitoxin 2,000 units. February 19, antitoxin 2,000 units. February 21, "patient seems better today. This evening he gave a peculiar cry, heard by the nurse, and was dead on the arrival of the physician a moment later. There were no heart sounds, but artificial respiration was kept up for ten minutes, and stimulants were also given. Patient gasped several times and died."

CASE 9. Patient, aged 16 years, admitted May 20; illness began May 18, well developed and nourished. Glands of the neck enormously swollen, throat much congested, swelling and implication of left tonsil; right tonsil and right peritonsillar space and whole area back into pharynx covered with dirty white deposit. Nares partially obstructed; prognosis favorable. Antitoxin 10 c. c. 1-1000 injected on admission. May 21, 9 c. c. 1-1000. May 25, 7 c. c. 1-1500. May 26, pulse 26 to 30 per minute. Patient died 10.30 p. m.

This was a remarkably large, strong, well developed young lady, who was brought to the hospital as soon as the diagnosis of diphtheria was made. If antitoxin has any specific influence over the toxine of diphtheria this patient should have been saved. As the report of the hospital shows, she died from the effects of the toxines on the heart and nervous centers. The pulse having ranged during the last twenty-four hours of life from 26 to 30 per minute, even with the foot of the bed elevated and with the use of all possible stimulants.

These histories are of cases brought under treatment in the early part of the disease—many of them on the first and second day. They had full doses of a supposed specific, and we do not find recorded in the clinical history one statement which would indicate that this specific modified in any particular a single manifestation of the disease, either in the laryngeal or non-laryngeal cases. Not one item in the clinical records can be found to indicate that any one of these cases was in any way benefited by the antitoxin. This is particularly noticable in the laryngeal cases. Patients brought in without evidence of very marked croup, and after receiving full doses of antitoxin, had to be intubated 12 and 23 hours after hypodermic use of this so-called specific. The clinical records of these cases are totally against the use of antitoxin in the treatment of diphtheria. A careful study of these records will, it seems to me, convince one who is familiar with diphtheria that there are clinical features here recorded which are due to the treatment and not to the disease. These features are referable to the kidneys, nervous centers, temperature and respiratory organs. There are 41 similar cases reported.

ANTITOXIN MAY PROVE AN IMMEDIATE FATAL POISON.—The numerous cases quoted from journal literature, showing the injurious effects of antitoxin, are many of them exact counterparts in their clinical course of the Willard Parker Hospital cases here reported, and taken together are confirmatory of the view that antitoxin may prove an immediate fatal poison, even when given in immunizing doses—that it may cause nervous phenomena, convulsions, etc., that it cause anuria, nephritis, albuminuria, haematuria, cardiac collapse, high and uncontrollable temperature, probably due to septic processes—septic pneumonia, subcutaneous hæmorrhages, petechiæ, arthralgia, joint effusions intestinal hæmorrhages, fetid diarrhoea, etc.

In New York and elsewhere has been claimed in defense of the serum that the unfortunate ill effects in the form of high fever and suppurations are due to streptococcus infection; but if this were really the case they should supervene while the morbid affection is in process of evolution in the throat; whereas they usually supervene after the disappearance of all throat lesions. It is now stated that the bad effects, which formerly resulted from the use of antitoxin, were due to the amount of serum injected, and that with the use of a more concentrated serum there would be less pneumonia and bad after-effects than formerly. This is a very weak admission. It is an admission that there are bad effects from the serum. One year ago it was asserted most positively by the advocates of this treatment that there were no bad effects—that it was absolutely harmless in doses of any amount.

ANTITOXIN IN PRIVATE PRACTICE.—

Dr. Edwin B. Tefft (New Rochelle) reports 5 cases of diphtheria treated with antitoxin, 3 deaths, mortality 60 per cent. During the same period there were 5 cases, stated by Dr. Tefft to be equally severe, treated without antitoxin; all recovered. Cases treated with antitoxin had the same internal and local treatment as those treated without antitoxin. These antitoxin cases had a so called specific at the very beginning of the disease and in addition such tonics stimulating and local antiseptic treatment as one of our best physicians could devise, and yet they show a mortality of 60 per cent., as

contrasted with no deaths in five other cases treated without antitoxin.

Dr. De Kraft had 3 cases of diptheria in one family; 2 treated with antitoxin at the beginning of the disease and both died; one without antitoxin got well. Another patient in Dr. De Kraft's practice died one hour after the injection of antitoxin.

Dr. J. C. Shannon recently treated 2 patients in one family with antitoxin at the very outset of the disease, and both died.

Dr. Koempel reports the case of a child taken ill on the night of April 22d. Antitoxin during the first 12 hours; second dose the following day. Child died 24 hours later.

Dr. J. H. Bache reports 3 patients at the beginning of the disease, two of whom died; case third, the child of a physician, barely escaped death from the after effects of antitoxin.

Dr. P. H. Ernst reports 12 patients treated with antitoxin, 7 deaths; mortality 58.3 per cent. Sixty-five patients treated without antitoxin, 11 deaths; mortality 16.9 per cent.

Dr. John Dorning employed antitoxin in his private practice in 7 consecutive cases of diphtheria, in the early part of the disease, in some of the patients during the first 12 and 18 hours, and all the patients died.

MORTALITY IN THE WILLARD PARKER HOSPITAL.—

Year.	Cases.	Deaths.	Per Cent.
1894 (non-antitoxin).....	699	205	29.32
1895 (antitoxin).....	778	190	24.42

Could those cases be eliminated which gave no clinical evidence of diphtheria, the mortality of 24 per cent. for 1895 would be greatly increased.

Dr. James Ewing made an investigation in the Willard Parker Hospital with reference to influence of antitoxin on the blood. His investigations included 53 patients with diphtheria. Fifty of these were injected with antitoxin; 19 died; mortality, 38 per cent. Dr. Ewing's investigation in the hospital was in cases in which there was clinical evidence of diphtheria, and my impression is that this report (30 per cent. mortality) would fairly well represent the actual mortality of the Willard Parker Hospital at the present time under serum-therapy, if patients who have clinical evidence of diphtheria were subjected to this treatment to the

exclusion and elimination of those cases which have no clinical data to warrant the diagnosis of diphtheria. In order to determine the result with reference to larger or smaller doses of serum, it was decided in the autumn of 1895 to give to alternate cases, as admitted into the hospital, doses of serum of 1,000, 2,000 and 3,000 units, respectively. There were two series of cases, known as mild and severe, having 2,000 and 3,000 units respectively. In the two series of cases marked "severe," having 2,000 and 3,000 units respectively, at a dose, there were 23 patients in the series having 2,000 units, of whom 7 died; mortality, 30.4 per cent.; and there were 22 cases in the series marked "severe" having 3,000 units; of these 11 died; mortality, 50 per cent. In the two series marked "severe" the cases were probably of nearly equal severity, inasmuch as they were alternate cases as received into the hospital, the mortality being higher with the larger doses of serum, in a series of parallel cases. Since these experiments no child has received doses of 3,000 units. In this series of experimental dosage there were 94 cases; 24 deaths; mortality, 25.5 per cent.

MORTALITY IN CHILDREN UNDER TWO YEARS IN WILLARD PARKER HOSPITAL.—Children under 2 years in 1894, 163 cases; 84 deaths; mortality, 51.5 per cent. In 1895 (antitoxin year), 153 cases; 95 deaths; mortality, 62.1 per cent.

At the very time of life when diphtheria is most dangerous we have in the Willard Parker Hospital a mortality of 10.6 per cent. greater with antitoxin treatment than without.

ANTITOXIN IN NEW YORK FOUNDLING HOSPITAL.—Prof. J. Lewis Smith has reported 31 diphtheria patients treated with antitoxin in the New York Foundling Asylum—12 on the first day, 17 on the second or third day, 2 on the fourth or fifth day—17 died, mortality 54.8 per cent. Mortality in New York Foundling Asylum in 1894 (non-antitoxin year) 24 per cent. 1895 (antitoxin year) 45.7 per cent.

MUNICIPAL HOSPITAL, PHILADELPHIA.—During the year 1895 there were 705 cases of diphtheria treated in the Municipal Hospital, Philadelphia. Three hundred and two of these received serum; 404 treated without antitoxin. No patient was injected who had been ill more than

4 days at the time of admission to the hospital. Cases that were considered hopeless on admission did not receive serum treatment; all patients that were considered hopeless when brought to the hospital were placed with the non-serum treated cases, and some of these died within an hour after admission. The mortality in the 302 cases treated with serum was 28.1 per cent. The mortality in the 404 cases treated without antitoxin was 25.9 per cent. The cases treated with serum had the same local antiseptic treatment and the same internal medication and stimulation that were given to the series of non-serum treated cases, and yet with a so-called specific added to the treatment in a far more favorable series of cases, there is a higher death-rate than in those not treated with serum.

RESULTS IN BLEGDAM HOSPITAL, COPENHAGEN.—Fifty-one cases of severe diphtheria treated with serum, 46 cases of severe diphtheria treated without serum during the same period—mortality 33 per cent. in both series. The average age of those treated without serum was lower than those treated with serum. Among those who died who were treated with serum, they were admitted earlier to the hospital than those who were not so treated. At the time of admission to hospital, complications were more pronounced in the cases treated without serum—the air passages being affected in 8 cases, while with those treated with serum only 3 times. Severe complications of the kidneys (after admission to the hospital) were observed only in those treated with serum. The serum was used earlier in the fatal cases than in the cases which recovered. That is, the day of the first injection was, on an average, earlier in the fatal cases than in the successful cases. From our experiments we cannot see any favorable action of the serum. On the other hand, we observe more severe hemorrhages, albuminuria, nephritis, toxicanuria, fever, eruptions, etc., in those treated with serum. The serum was also used in croup cases complicated by severe diphtheria, and in mild cases of croup for the purpose of preventing stenosis. The mortality in all cases (operated and not operated) was 28 per cent., and for operated cases 40 per cent.; but during the same period there 87 cases of croup that were not injected; the mortality in these for all cases (operated and

not operated) was 25 per cent., and for operated cases 38 per cent. Therefore, lower than in those treated with serum. Severe diphtheria complicated with croup did very badly with this treatment. All such patients died, and the good results in milder cases is explained by the good type of the present epidemic.

REPORT OF THE MEDICAL SUPERINTENDENTS OF THE METROPOLITAN ASYLUMS BOARD (LONDON) 1895.—This report embraces 2,182 cases of diphtheria treated with antitoxin, 615 deaths, mortality 28.1 per cent. The Medical Superintendents compare this report with that of 1894, when 3,042 cases of diphtheria were treated in all the hospitals of the Board without antitoxin, 902 deaths, mortality 29.6 per cent.; but we find that in the Northwestern and Southwestern Fever Hospitals of London the following results to compare with the antitoxin statistics:

S. W. Hospital.—

Year.	Cases.	Deaths.	Per Cent.
1892.....	463	93	22.5
1893.....	585	159	27.1
1894.....	543	156	28.5
	1,591	408	25.5

N. W. Hospital.—

Year.	Cases.	Deaths.	Per Cent.
1892.....	682	138	21.8
1893.....	1,249	332	26.5
1894.....	1,147	309	26.9
	3,078	779	25.3

S. W. Hospital.—

Year.	Cases.	Deaths.	Per Cent.
1895 (antitoxin)...	316	94	29.7

N. W. Hospital.—

Year.	Cases.	Deaths.	Per Cent.
1895 (antitoxin)...	363	117	32.2

In the Southwestern and Northwestern Hospitals.—

Years.	Cases.	Deaths.	Per Cent.
1892-93-94.....	4,672	1,187	25.4

In all the Hospitals.—

Year.	Cases.	Deaths.	Per Cent.
1895 (antitoxin)...	2,182	615	28.1

There were 225 tracheotomy cases in all the hospitals of the Metropolitan Asylums Board in 1895, treated with antitoxin, 113 deaths, mortality 50.2 per cent. During the year there were 30 tracheotomy cases in these same hospitals that did not receive antitoxin, 12 deaths, mortality 40 per cent.—10.2 lower without antitoxin than in those treated with antitoxin. This is just the result to be expected when a depressant like antitoxin is added to the treatment of diphtheria so serious as to require tracheotomy. It cannot be said that the tracheotomy cases which were not treated with antitoxin

were mild cases. The tracheotomy cases treated with and without antitoxin during the year 1895 were cases of the same degree, and offer a very good field for comparison of results.

At the Northwestern Hospital during 1892-93-94 there were 215 tracheotomy cases, 124 deaths, mortality 57.6 per cent. During 1895 there were 28 tracheotomy cases in this hospital treated with antitoxin, 18 deaths, mortality 64.2 per cent. During the year 1895 there were four tracheotomy cases in the Northwestern Hospital treated without antitoxin—all recovered. Nothing could be more conclusive of the depressing and dangerous effect of the antitoxin in that severe form of diphtheria of the larynx and trachea, which necessitates tracheotomy, than the records of the Northwestern Fever Hospital for the years 1892-93-94-95.

ANTITOXIN IN LARINGEAL DIPHTHERIA.—About the only claim made for antitoxin at the present time by its advocates is that it has a favorable influence in laryngeal diphtheria; that it relieves stenosis; that it obviates the necessity for operative interference; that the mortality is lower in non-operated cases and operated cases treated with serum; that the tube can be removed earlier when operation becomes necessary. If antitoxin does not cause a "melting away" of the membrane, as it was first claimed, and does not lessen the duration of the membrane in the visible portions of the throat, what reason have we for supposing that it influences the duration of the membranes in the larynx? The mortality in the Willard Parker Hospital for the first nine months of 1895 in intubation cases treated with antitoxin was 68 per cent., and for the last quarter 76.9 per cent. During the first quarter of 1896, 67.7 per cent. In April, 72.7 per cent.

In the Municipal Hospital, Philadelphia, there were in 71 intubation cases treated without serum in 1895, 40 deaths, mortality 56.3 per cent.

Wiederhofer gives mortality of 43 per cent. in intubation cases before serum treatment.

Von Ranke, in 326 intubation cases, mortality 57.4 per cent. before serum treatment.

Meisenbach, 57 per cent. in tracheotomy cases in the Philadelphia Children's Hospital, before serum treatment.

In Strassburg, in 397 tracheotomy

cases (1891-94), mortality cases 44.3 per cent.

In Geneva (1872-88), mortality in tracheotomy cases, 49 per cent.

In the University College Hospital (London), mortality in tracheotomy cases in 1894 (non-antitoxin year), 47 per cent.

Is not the very high mortality in intubation cases treated with antitoxin in the Willard Parker Hospital, when compared with the results in intubation cases without antitoxin in the Municipal Hospital, Philadelphia, and the intubation cases reported by Wiederhofer and Van Ranke, before serum treatment, and in tracheotomy cases in Philadelphia and in all parts of the world, before serum treatment, a most positive warning against the use of this treatment in this serious and dangerous form of diphtheria? Why is it that antitoxin has to-day the hold on the profession which it has? The fame of antitoxin is largely due to the influence of two hospitals—the Empress Frederick Hospital (Berlin) and the Hospital for Sick Children in Paris. We find that the Empress Frederick Hospital received 875 cases of Diphtheria during 14½ months of serum treatment, and that there had been received into the same hospital during the previous four years only 1,063 cases of diphtheria. It is owing to this increase in the number of cases of diphtheria in the various hospitals, and the increase in the number of cases reported as diphtheria, as the result of the bacteriological diagnosis in various cities of the world, that antitoxin is reputed for reducing the death rate of diphtheria. A careful examination of the subject reveals the fact that the actual number of deaths have not been lessened, but, as stated at the outset of this article, the fame of antitoxin rests on the reported decreased percentage mortality. We find on examination of the reports from various cities and hospitals just what was pointed out, with reference to the city of Boston as a whole, and of the Boston City Hospital, that the actual number of deaths have not been lessened.

The *Post-Graduate* says: "This is not an age for reading books in medicine. What men who have graduated, and who have a thorough fundamental knowledge chiefly want, are cyclopædias and dictionaries and journals."

A Brief Consideration of Some of the Clinical Features and Morphological Elements of Neoplastic Formations or Pathological Processes which Involve the Anatomical Structures of the Mouth with Special Reference to Malignant Disease.

By THOMAS H. MANLEY, M. D., New York.

In the following elementary presentation of the above named subject, space will permit only of a short *resumé* and an in complete consideration of it.

It will be rather suggestive than exhaustive, an endeavor only being made to submit none other than the practical features of oral lesions, which are chiefly neoplastic in character.

The enormous modern strides in the science and art of surgery have rendered nearly obsolete many things which were taught us in our student days, with all the force of dogma. We should not, however, depend on surgery as our sole resource in this class of lesions, but as a preliminary in all cases, first thoroughly acquaint ourselves with the *vis medicatrix nature*, the dormant powers within the system, to head off, as it were, abort or mitigate the effects of morbid processes, and above all things our attention should be directed with greater earnestness to the local and general action of domestic and pharmaceutical remedies, for after all, at best all our most brilliant operations are mutilations of the human body and a practical confession of our impotence to reach a disease by the same deranged metabolism which produces it. At present, space will not allow the side of therapy to be touched on only indirectly.

According to the statement of Roger Williams and other contemporaneous observers, who have made a special study of malignant disease, of late years, its spread has become annually greater, especially among the middle and well-to-do classes; and in no region of the body has this ratio of increase been greater than in what may be termed in its broadest sense *oral cancer*.

Since recent advances have been made in the art of surgery; since operative pain can be effectively annulled, the dangers of infection are largely obviated; since an effective command of hemostasis is rendered possible and positive, by an im-

proved operative technique, and almost marvels are wrought in dental operations, and in plastic procedures on the vascular tissues which environ the buccal cavity, a very large field has been opened for operative surgery.

Exclusive of the infectious diseases which are prone to involve the mucous surfaces of the mouth and pharynx, none can be of graver concern to the surgeon, than the so-called malignant diseases, as epithelioma, cancer and sarcoma, the morphological elements of which we have some knowledge of, but of their essential cause we are profoundly ignorant. This latter must be conceded by every one familiar with the latest literature on the subject, and who has made a clinical and morphological study of the subject himself. This being conceded, it is at once clear that a definite, rational therapy is impossible, and that it is absurd and preposterous to formulate definite rules about the management of a disease, the causation of which we know nothing.

Theories and speculations are infinite; the tide of professional opinion ebbs and flows. At one time the constitution is declared at fault, at another, the *fons et origo* is a local infection. In my own student days heredity, domestic sorrow, the celibate life and the menopause were said to play an important *role*, and the wary, conscientious operator always seemed to give a sigh of despair when he announced the diagnosis of "cancer." Operative surgery he taught offered little more than palliation in these cases. But now, *mirabile dictu*, every amateur or tyro boldly declares that cancer is curable, provided only that we operate early and cut wide of the invaded territory. How can these contradictory conclusions be explained? Simple enough. The guide of the ancients was wholly clinical; of early enucleation they knew nothing, as the agonizing distress of surgical operations, without anæsthetics, restrained the afflicted from applying for relief, until general infection or a generalization of the disease had set in.

They knew nothing of the histological elements of neoplasmata. The moderns have placed too much reliance on the microscope, and are ready to stamp the pathological character of tumor with a dogmatic certainty, after sweeping their eye over a specimen under the lens.

So eminent an observer, and great a

pathologist, as Billroth denied that the characters of a tumor could be always determined by the microscope. The fact, no doubt, is that a considerable proportion of the tumors, now-a-days, are being branded and stamped as cancers which are in no manner related to that baneful lesion, but are essentially innocent growths. But, this side of the subject is a very large one, therefore, in this connection, as space will not permit of its general consideration, but a few features of it can be dwelt on.

Of late years malignant tumors have been practically divided into two great classes (Carl Heitzman). First, the epithelioma, and secondly, the sarcomata; the former being made up of protoplasmic elements which possess in their form and arrangement many features in common with glandular elements, and the latter of non differentiated cellular corpuscles of a foetal type and are supposed to be derived from mesoblastic or connective tissue structures. The anatomical characters of these two types, with unimportant variations, are quite constant, and here is where the interesting practical phase of the question comes up, for although a uniformity of elements prevails in all, quite regardless of where located, their history and course are radically different. In no part of the body is this more pronounced and decided than in the structures and bony-framework of the mouth.

Assuming that irritation is a prolific cause of neoplastic formations in the mouth and its contiguous parts, it is easy to understand how, in our time, there should be an enormous increase of them.

The mouth of the lower animal is rarely the seat of morbid growths. Twenty or thirty years ago these were rarely seen in hardy European immigrants, and comparatively rarely in the upper classes of society. But the last three or four decades of time have wrought a vast and radical change, not only in the political complexion of things, but in the habits, social customs and hygienic conditions of our people. Never before, in the world's history, were the masses so well fed and clad, and *pari passu* with the general expanse of civilizing influences has come, in its wake, an over indulgence in luxuries and the acquisition of vicious habits.

No animal, except the human being, will habitually sip scalding water or drink the iced wine; deliberately and habitually

indulge in the use of narcotic or fermented fluids; and of moral or sexual perversion they know nothing. But unhappily for humanity in proportion with our advances in civilization, vicious tendencies keep well forward in the front rank, which few, if any, entirely escape.

The dental art is to a large extent responsible for a considerable share of those adventitious formations. The irritating or lethal qualities of those chemicals employed in teeth filling, trauma of the teeth at time of filling, misfit plates, or consecutive atrophy after prothetic appliances are adjusted, all contribute towards provoking a local cellular proliferation, liable to undergo malignant degeneration.

It is probable too, that tooth extraction is, in a measure, responsible for awakening destructive action in certain predisposed individuals. Such, at all events, was the history in a case lately, that came under my care for removal of a large sarcomatous mass, in the lower jaw, of a young woman, and many others may be found scattered through surgical literature.

The constant use of tobacco is probably, however, responsible for more malignant diseases in the mouth than all other causes combined. It is probable that harm does not come so much from the effects of tobacco as the elements which are blended with it to give it "flavor" or to make it "cool." Chewing is less harmful to the mucous membrane of the mouth than smoking. Hot, pungent smoke is intensely irritating, especially when issued from medicated cigars or cigarette. And who does not use tobacco, in what climate or country or race is not the custom general? What rank or calling, however responsible, dignified or sacred is free? Indeed, the soothing, stimulating influence of tobacco becomes quite irresistible to those who have once yielded to it. But nature exacts her penalty in many cases and if one, in the long run, escapes the toxic effects of the narcotic on the blood or nerves, it may declare its baneful power on the vascular tissues of the mouth.

Anatomico-Physiological Considerations.

The face is an appendage of the skull, the mouth occupying its lower anterior third, its cavity extending backward under the cranial base, the posterior wall of the pharyngeal cavity consisting of the bodies of the four upper cervical vertebræ.

When the mouth is closed the buccal cavity is quite filled by the tongue, and hence in this state respiration is entirely through the nose. The lips and interior of the mouth are composed of several structures and anatomical elements of a unique composition. The lip is made up chiefly, of condensed connective tissue, with a thin, transparent investment, transitional, between mucous membrane and integument. This stratum is singularly thick, though its lymphoid layer is very thin and irregularly formed.

The double set of osseous spurs which form the dental arches are embedded in the gums and the alveolar depressions of the jaws. The tooth in its osseous composition has no analogue in the body. It derives its vascular supply in early and middle life, from two independent sources, viz.: the vessels pierce the pulp centres from underneath, and peripheral vessels which enter the periodontal sheath through the gums.

The gum itself, like the hard palate, and its surface, consists of condensed areolar and fibrous tissue, elastic, highly vascular, and possessing in a marvelous degree, resistance to pressure. The mouth is lined by stratified cuboidal epithelia, which extend backward to the rim of the glottis, where the ciliated begin.

The cavity of the mouth has several tubular and hollow passages, the respiratory, alimentary, nasal and aural, the salivary, central and opening of mucous crypts at the base of the tongue, and those hedged in by the lymph tissue of the tonsils. The floor of the mouth is formed by the lower jaw or mandible, and the muscles which stretch up from the hyoid bone to it and the tongue. The dome or roof separates the buccal cavity from nasal, or respiratory passages above.

The arterial supply to all the structures of the mouth is large, coming chiefly from ascending pharyngeal, the lingual, the facial, internal maxillary and the ophthalmic division of the internal carotid; the trunk of this latter great vessel passing near the root or neck of the lower jaw through the substance of the parotid gland and just beneath the base of the tonsil.

In function, the mouth is the centre of many complex processes. The food is here reduced to a pulp, blended with a diastase and moulded into a bolus to be seized by the pharyngeal muscles and cast into the œsophagus in deglutition,

thus serving a mechanic, chemic and ethal function.

The human being has become, in a considerable degree, a mouth-breather. Nature intended the nasal passages as the funnel to carry off the products of combustion in respiration and all necessary exhalations from the stomach. But articulated speech, which man alone possesses and exercises, requires the open mouth for the passage of currents of air in intelligible phonation.

Man uses the mouth for many purposes other than the demands of nature.

Players on wind-instrument adapt the lips to the purpose of a reed, and smokers adjust their pipes or cigars between the teeth in making suction. The custom of expressing respect or friendship by simultaneous suction on the lips, or kissing, is peculiar to the human family in the Caucasian branch; the lecherous or amorous kiss is its lustful perversion.

Finally, with respect to construction and function the mouth, or its cavity taken as a whole, occupies a unique position, intricate in arrangement and most complex in function, the most exposed to trauma, irritants and infection, and yet by ample provision of the economy, is immune against the deleterious influences of all, unless the provocation is extreme and long continued.

Etiology of Diseases of the Mouth, not of a Constitutional Origin.

In the present state of medical science it is difficult, or quite impossible, to definitely draw the line between many of the diseases in the region under consideration, which are strictly of local origin, and those dependent on systemic changes, primarily manifested here.

The great weight of opinion, however, inclines to the view that there are numerous lesions of the oral cavity dependent exclusively on local causes. Besides, this view has the support of the latest teachings of science and clinical observations.

If one were asked what two were the most prolific causes of diseases of the soft parts in the mouth, or its necessary structures, in the adult, there should be no hesitation in answering: diseased teeth and the use of tobacco.

It is a sad commentary on life to have to admit that in modern society scarcely is the body matured before death begins in some of the organs; before the teeth

show signs of decay, and the most excruciating pain is the warning note that dead or dying structures must be dislodged and separated from the living. When the constitution is sound and decay is not too far advanced scraping and plugging may preserve a few, but in a short time the reprieve is ended and the teeth must go. Hygiene and art will do much to preserve one's "ivories," but for one, who can or will avail himself of these, probably several hundred will not, or can not.

Decay of the teeth and pathological conditions consecutive to this, injuries to the jaw in extraction, sepsis from infected instruments and maladroitness in extraction, are all contributive factors in providing the soil for new growth. Operative trauma in dental surgery is indeed a most baneful cause.

The next in order, as a causative factor, is badly fitting plates.

While a wide diversity of opinion remains on the question of exclusive or local influence in malignant disease, none will dispute the *role* of continual direct irritation as a cause, at all events, in one with a predisposition to morbid growths. Now false teeth are most certainly foreign bodies, and when loose or badly adjusted, are a source of constant irritation, their jarring and friction, in time, rousing into activity a malignant proliferation.

Tobacco smoking is generally believed to stand well to the front as a cause of malignant disease of the mouth. Lip ulcer is rarely seen, except in men who smoke. Few ever see it in women. The fine brands of Havana tobacco and cigarettes seem to be the most lethal on the local tissues. This would seem to be borne out by the fact that malignant hyperplasia of the tongue, the buccal or pharyngeal structures are more common among the wealthy or easier classes than among the poor.

The surface of the mouth, the tongue and pharynx, though provided with an epithelial investment well calculated to resist irritants, has underneath the lymphoid layer a thick substratum of myxomatous tissue, extremely rich in blood vessels and lymphatics. When a local ingrowth of epithelia touches on this bed, the work of dissemination and multiplication is rapid.

The gums, the hard palate and the pharynx have an osseous substructure.

This in cancer; and in some types of epithelioma, is soon engaged in the disease; but in sarcoma the osseous elements offer great resistance. The investing periosteum, is invaded early, but this is as far as the embryonic reversion of the protoplasmic elements can extend, when the disease is primarily in the soft parts. Osteo-sarcoma, proper, is rarely met with in the bones of the mouth, or any others, devoid of medullary elements.

Pathology, with Clinical History.

Our knowledge of the pathology of tumors has been greatly broadened of late years, through the employment of the microscope, the study of bacteriology and experimental research. Notwithstanding all this, however, very much yet remains undone, and anything like accuracy or scientific precision in our knowledge of many pathological problems remains to be attained.

This is about the situation in the question of isolation and recognition of the many heterogenous formations which abound in the cavity of the mouth, at middle life or after it.

The great difficulty comes in drawing the line between the benigns and malignants, in epithelial phlegmasiæ, e. g., in many of the adenomata, some of which we know to be of a self-limited life, attaining to a certain stage of development, then as insensibly disappearing as they came.

Many of the microscopical features of these intra-oral growths are so complex that a microscopical examination alone will not and cannot determine their true character.

In all neoplastic growths, during their stages of rapid advance, a disturbance in the metabolic processes in the areas involved, quite identical with inflammation is observed, it being most marked in cancer. That this is not marked by all the clinical features of inflammation counts for nothing, inasmuch, as, in all microscopical examinations of sections removed the morphological proof of it is not wanting. It is only when proliferation has advanced to such a stage, as to interfere with function, or give rise to special symptoms, that serious apprehension is aroused. As the surface tissues of the mouth are soft, succulent and vascular, in cancerous disease, ulceration is early and

hæmorrhage is one of its most constant symptoms.

Glandular implication is not a constant, consecutive feature of malignant diseases of the mouth, unless the tissue proliferation is in close juxtaposition. It is true that the lymphatic absorbents, under the jaw, at an early date become tumefied, but these bodies are in no sense true glands, and besides, this enlargement is not especially significant of cancer, as it is a general concomitant of all infectious diseases of the naso-pharynx.

General infection of the body from the inspiration or swallowing of the infectious discharges of the mouth, is greatly to be dreaded in all these malignant growths, where the stage of ulceration has commenced.

The clinical features of these neoplasmata, although in some respects characteristic, are not always definite. Depression of spirits, the gruesome cast of the features, and the bronzed skin, what the older writers attached so much importance to, they all have; but this brings us back to the question of etiology.

The patient is at first insensible of the growth; then after a time an uncomfortable sensation, with lancinating pain, is felt. In the next stage all the symptoms become more accentuated. The surface of the tumors bursts from a rising pressure underneath; pain is now aggravated, the discharge foul smelling and abundant begins to sap the vital powers. Now, perchance, for the first time, it dawns on the patient that he has a cancer, the very thought of which crushes his spirits and strikes a smiting blow at his more sanguine hopes. As with one overwhelmed with secret grief, the vital forces soon give way, the appetite fails, his nights are sleepless, and he is forever haunted with a conviction that his fate is sealed, and that he is irretrievably doomed to the agonies of this remorseless and pitiless scourge.

Broca taught that there was always a precancerous stage, with definite clinical features, impossible for the experienced to mistake, and as impossible to reach with prophylactic remedies. This view was shared by Lebert (Traite Mulad. Proc. des Cancerenses).

Symptomatology.

The symptomatology of neoplastic lesions of the oral structures is a very large

subject, far too extensive to be even outlined in the few brief notes here submitted. It will, therefore, be my purpose to touch but very superficially on a few of the more ordinary and common features of these complex cases, than attempt the analysis and detail which their importance merits.

In the beginning, let it be understood, if one would aim at probing to the bottom for the definite indications of a given disease, he will begin with the body as a whole.

Have we any definite symptoms pointing to tuberculosis, syphilis, scurvy or diabetes?

By a careful examination into our patient's history we may possibly eliminate venereal disease, though it may be well not to place too much reliance on what our patient says, for he may be a person so situated that a full disclosure might seem to him highly imprudent even to his physician. Moreover, it should be remembered that we may have all the various manifestations of syphilis without a primary visible chancre, or the nongenital, or that directly communicated from the mouth of another infected person, or from pederastic practices.

Some of such cases have come to my notice; one being a young woman who had an ulcer which had seized on the sublingual tissues, swept away the frænum and produced a deep, broad erosion, with about all the clinical features of cancer. For various reasons specific disease was suspected by me, and she was very promptly placed under the influence of specific remedies.

Constitutional and local treatment in three weeks completely healed the parts; when this young woman, who was sent into my hospital service for removal of the tongue, was discharged cured.

In young people, especially when the lips or the buccal mucous membrane are the seat of ulceration—simple mucous patches or phagedenic sores—the possibility of specific disease, should be always kept in mind, and, when in doubt, the *therapeutic test* will soon decide.

Tuberculosis.—This protean malady in many of the peripheral situations, along the tubular passages and in the hollow organs, often presents so many complex features, that its differentiation from cancerous degeneration of tissue is difficult, if not impossible.

But one might say: How about the

boasted, vaunted progress in diagnostic methods by the microscope and cultivation of pathogenic bacteria, if it will not avail us in those tissues of the mouth?

Well! it is about time that the prevailing fallacy of dogmatic precision of diagnosis, by the aid of the microscope, was relegated to the limbo of other fads which have been floated on the profession, of late years.

How many cases do we see, wherein, on both staining and culture, no bacilli of Koch can be found, and yet the victims are fast going to pieces with a galloping consumption; and others again, whom in whose sputa whole colonies of the bacteria are daily ejected, proceed to complete recovery?

Histological examinations of suspected tissues, without the clinching support of clinical phenomena, are not safe criteria to act on.

No one, more than myself, is more ready to acknowledge the enormous aid of biological science in diagnosis; but it has its limitations. It can only tell us what the finer anatomical changes in the tissues are, but here it must stop. Thus, although the course, general character of an epithelioma of the lip, the tongue, the rectum, or the penis, in a young man or an old woman, are all quite identical, their clinical course is vastly different.

The freaks of tuberculosis, also *apropos* here, as for example, in the osseous structures of the child, the tendency is towards recovery, while it is the opposite in the adult, especially after middle life.

When tuberculosis attacks the tissues of the mouth, it is to all intents and purposes a malignant disease; the tendency to generalization, the constant pain and exhaustive discharges, soon crushing the vital resistance. Pulmonary implication has been always present in any of these cases which have come under my notice.

But this disease, as will all others of a specific character, manifests a special selection, and most frequently seizes on the osseous structures.

The broken mucous surfaces about the roots of diseased teeth, probably being the portals of entrance. The crypts in the *papilla circumvallata* at the base of the tongue, the glottic chink and larynx are its favorite sites when the soft parts are attacked.

When doubt exists, as to diagnosis of

this lesion, the constitutional symptoms may help us to clear it up.

Carcinoma and Sarcoma.—The symptoms of the former are usually more definite and unequivocal.

As a rule, when cancer of the mouth has had a good start and infiltrated the neighboring tissues, its progress towards death is rapid. Unlike peripheral cancer it is not painful in its early stages. The patient may be conscious of a moderate irritation, which produces no inconvenience, and, perchance, the first intimation of serious trouble will be hæmorrhage.

An example of this came under my notice this past winter, in a middle-aged maiden lady, who was first startled by finding her mouth filled with blood one morning after rising. Her family physician discovered a cancerous growth on the right side and summit of the tongue, and sent her to me for its excision. At no time did she have the slightest pain, and yet, on examination under the microscope, it proved to be a most malignant type of adeno-carcinoma.

A somewhat similar history was given me by a man two years ago, who had a cancer of the tonsil.

A favorite site for primary cancer is the lateral edge of the tongue, about midway between its base and tip. Its hard warty base points to an epithelial ingrowth, and when the stage of ulceration begins the foul characteristic fetor of malignancy cannot be mistaken. The course of this disease and its general symptoms are the same in all the tissues of the mouth, if left untreated.

Sarcoma.—Virchow first gave the name of sarcomata to a class of tumors not well understood before his time.

Their underlying anatomical elements in all are the same; all are made up of embryonic, lymphoid elements. This uniform, unchanging morphological character, constant and invariable, yet they occupy, strictly speaking, a middle ground between benign and malignant growths. In some people they remain as indolent, harmless growths for years; in others, after removal, they never return; while in others again, especially in the young, their progress to certain death is rapid and irresistible, surgery being impotent to do more than secure a very brief truce in their mortal march to destruction. When they primarily involve the osseous elements, or the serous membranes, ex-

cept for palliative purposes, art is quite impotent, for, to generalize or return they will, in all but very rare instances.

These growths are comparatively common in the maxillary, inter-maxillary and sub maxillary regions. In the tissues lying under or subjacent to the mandible, they are more frequently lodged, although they do occasionally appear in the upper jaw, starting somewhere in the alveolar arch and spreading upward, sometimes obliterating the antrum of Highmore, encroaching inward on the nares, or upward through the sphenoidal sinus to the base of the brain, backward into the pharynx, or downward through the palate into the mouth.

These growths revel in the loose areola fibrous tissue which clothe the osseous frame work of the mouth and pharynx. Although, in some their growth is rapid and they spread in every direction, their general tendency to infiltrate, to penetrate and lay waste to everything in their path, is in no degree to be compared to cancer.

In many, in fact in nearly all, the primary advance of sarcoma is insensible. It is only when it occasions a stenosis or obstruction to a passage, or its position interferes with a function, its volume attracts notice, or the stage of ulceration has begun, that one is conscious of its existence.

We have good reasons to believe that many of these growths come and go—advance to a certain stage of development, undergo atrophic changes and disappear. Quite a few epuloid masses have come under my observation which had all the clinical characters of sarcoma, underwent spontaneous subsidence and disappeared. *Per se*, it cannot be said that sarcomata have a definite symptomatology. It is true that in young people when their growth is rapid anæmia and emaciation are pronounced.

The great difficulty is in differentiating them from cancer, something, sometimes quite impossible, either by clinical signs or microscopical analysis; the latter because by some pathologists it is claimed embryonic elements may undergo heterogeneous changes and take on the characters of epithelia. In several instances, coming under my own immediate treatment, on section and microscopical examination of the tumor removed, mixed features were present; in fact, in one case, there could be no mistaking the

giant-cell myeloplaxes in one area, with distinctly newly formed glandular elements in another.

We should always bear in mind too, that the number of purely benign swellings in the mouth is large; and one should not be everlastingly haunted by visions of malignant disease, when every nondescript buccal tumor comes into view. No doubt when anything like a precise or reasonably correct diagnosis is required, a clipping from the growth and a microscopical examination will help to illumine the way; but such an examination is unreliable and capable of a dangerous interpretation, unless it be taken from the deep part of the tumor. This will most certainly provoke hæmorrhage and expose the parts to the possibility of infection, something not easy to avoid, over a mucous membrane. Then another more serious objection. The patient may strenuously object to being mutilated unless an assurance can be given that no harm can come from it. But this cannot always be done. In my own early experience I ventured once to take a small bit from the surface of a pharyngeal growth. A most ungovernable hæmorrhage followed, which was only controlled after the lady was greatly exsanguinated.

Precision in diagnosis is not indispensable in these cases, unless local or constitutional disturbances are pronounced and progressive, then the course to pursue is no longer ambiguous. Difference of opinion exists only on the appropriate therapy of these new growths, when they first appear, and it is encouraging to know that though formidable as they may appear, with the means now at our command, but few are inoperable and many can be permanently cured by radical extirpation, or the caustic.

115 West 49th Street.

The Major Circuits of Electricity in Medicine.

By GEORGE WILKINSON. Omaha, Neb.

If it is true that no student can understand chemistry unless he can comprehend the atomic theory, it is true, also, that one can never understand the subject of electricity unless he is acquainted with the fundamental laws. And yet further it is true that few can understand either the atomic theory or the funda-

mental laws of electricity unless put before them in a comprehensive manner. A teacher would fail to teach chemistry, for the reason, that although he may understand his subject yet he were unable to teach the atomic theory.

The matter below was written for a medical meeting some seven years ago, by the present writer, and has been modified somewhat at the request of medical men to make it conform to the present time. When it was written the alternating dynamo was not in use. Hence all that pertain to current controllers has been changed; so too, many of these alternating currents were hardly known at the time.

Volts and Amperes.

We were taught in electro-therapeutics that electricity is electro-motive force and that electro-motive force is the force that starts the current and this force that starts the current is electricity. Could anything be more indefinite than this definition of electricity? I have no fault to find with the correctness of it, but it is an enigma and a puzzle; it shows about what is known of what electricity is. Whatever electricity be, or what be a definition for it, in practice we must always know clearly two fundamental working principles. No matter what be the source of the current from or by what generated, two elements make up always its fundamental character. The first is its intensity or pressure, or electro motive force, and is called *voltage*. The second is for convenience spoken of as the strength of the current, and is called *amperage*. These two factors, quality and quantity if you like, determine chiefly the character and use of all currents of electricity. One multiplied by the other gives the value in watts, which represents footpounds and horse power. To appreciate this play between volts and amperes many of the seeming mysteries of electricity pass away.

Whether we generate electricity, or a current of electricity, by chemicals, by friction, or by induction, or by the so called storage cell, according as are the factors, volts and amperes, so chiefly the character and use of the current.

Continuous and Alternating Currents.

In applied electricity currents are spoken of as of two kinds: 1st. continuous or galvanic currents; 2d. the inter-

rupted, alternating, sinusoidal or faradic currents, etc. The first are primarily generated, either by heat, chemicals, friction or electric machines, and are called primary currents to induce other currents and are called induced or secondary currents. The storage cell is said to give a secondary current. It is charged from a continuous primary current, and for this reason called secondary; yet it gives a continuous current. Dynamos are now made to give secondary interrupted or alternating currents, and used for incandescent lighting and welding. These terms, primary and secondary currents, etc. etc. are so interdependent that they are very confusing, and might be dropped. To do away with this confusion it is enough for us to know that there are two kinds of currents—the continuous and the alternating—or, if you like, the galvanic and the faradic.

Electricity manifests itself in different ways, in both continuous and alternating currents, according as it is voltage or amperage that is working. Frictional or static electricity is not amperage or strength of current. When you charge a man with frictional electricity, from say a Holtz or Wimsthurst machine, you are dealing with voltage, not amperes. Only voltage has the power to play in and around non-conductors, as in the atmosphere. Did a lightning bolt, developed as it is by friction, carry with it the amperes by means of its thousands of volts, that are generated by some of our powerful dynamos, and should such strike the earth (lightning fortunately nearly always strike above in the clouds), no great explosion of dynamite could equal its destruction.

Cells in Series and in Multiple.

Electricity developed by chemicals or batteries is electricity of strength; amperage, not volts. No chemical cell gives more than two volts, but by increasing the size of the plates in a cell and the number of plates or so called elements you can greatly increase the amperage. Could you thus also increase the voltage, a cell of no mean proportion would drive a street car. You have only to multiply the volts by the amperes to see this (volts x amperes—watts, and 746 watts to a horse power). The same things applies exactly to the storage cell, for no matter what size, they give each two volts, but

the larger ones give enormous amperage. It should be understood that cells connected in series give the combined voltage of all the cells, but the amperage of only two. To get more amperage or the amperage of each cell you must connect cells up in multiple; this of course will reduce the voltage.

It might be well to mention here that electricity is not stored in a storage cell in the sense we speak of storing or charging a person or leyden-jar with voltage. The storage cell is an open circuit battery, and is a thing of strength or amperes, and you can't store amperage. It is really a chemical battery which takes up an electric current passing through it by a chemical change and delivers it in an opposite direction when called upon to do so. The problem of the storage cell is either to make it give voltage or to make it of lighter material. Could this be solved, so is aerial navigation solved.

It is simply a matter of how much resistance you have to overcome by voltage and how much strength of current you want by amperage. If you want to send a current through the air to make a spark jump forty inches through such a non-conductor as the atmosphere, you need thousands of volts. A lighting bolt requires millions of them. If you want to send a current through the body, or from any two points, you require voltage, for the body is, especially with dry skin, a poor conductor. Now the amperage of the current can't overcome anything. It is like a large body of water lying in the mountain summit; great with power should it get loose. Tip it up or put a pressure behind it, and the more the pressure (the more the tip) the more amperes it can send, and this is voltage or the force that makes the current go; and it will go at a speed which is the velocity of electricity—the velocity of light.

Say you had a battery of fifty cells in series, each two small plates or elements, such as we use for the continuous or galvanic current. Say it is in good working order, and each cell is giving $1\frac{1}{2}$ volts, or 75 volts in all. Now these cells each give, we shall say for convenience, $\frac{1}{2}$ an ampere. (If you want more amperage you must connect same in multiple, as is explained above). Now send this current through the body and read your galvanometer or milliammeter.

The milliamperes are reduced to 10. Forty of them could not get through with this amount of voltage. Now read your voltmeter; it is still 75. This must never be forgotten, if the current got through at all, all the voltage must go through or none. Not so with amperage; the resistance was too much for all of it, or, in other words, the voltage was not enough to send it all through. No rheostat, either Germansilver, carbon, water, nothing of this nature, will reduce voltage, all goes or none. If you want to reduce it, lessen the number of cells, or shunt or divide it, or in case of dynamo put less winding or heavier wire on magnets or armature, or reduce the speed.

Do not think this amount of amperage (for the pain is exceeding great in electrolysis or galvanism with over 200 milliamperes) will make a galvanocautery or electro-magnet for removing foreign bodies from the eye.

This is the continuous galvanic current for galvanism, electrolysis, cataphoresis, metallurgy, etc.

I have put a small electro-cautery in the circuit of a dynamo, running at 110 volts and 7 amperes, and it would not even heat it, nor make it warm. You can do the same in the current of an arc-light, (if you are fortunate to live to tell the tale afterwards) running at from 3,000 to 5,000 volts and a few amperes, and you will get no heat. The reason of this is easily seen. The voltage and the amperage run through the cautery tip, which is of slight resistance, but in order to heat it red hot more amperes must pour in to stir up the molecules of the platinum tip or wire. Generally we use from 12 to 30 amperes for cautery work and only 2 to 4 volts will carry them through this little resistance. Voltage, pure and simple, has no effect on the molecules of anything. One volt, under good conditions might, on an easy conductor like a copper wire travel round the earth; 5,000 volts in an arc-light circuit and a few amperes will jump in the air to heat the carbons through many lamps in the series. Not so with amperes, even copper wire will reduce them and make it, in a pecuniary sense, very appreciable to an electric light company unless the voltage is very high. (This is the reason why alternating dynamos are used).

Were it possible for 5,000 volts to carry no part of an ampere. I do not see how

the current would be dangerous to life. Voltage of such high intensity carrying small amperes is deadly as in the arc-light circuit; 5,000 volts carrying 600 amperes would burn a man to a crisp. It is the amperes that kill, but the voltage must be able to push them through. This was the problem in "electrocution," i. e., what will kill by shock but not burn?

The Control of Currents of Dynamos.

We come now to consider our means of controlling for medical uses those major currents of electricity which are dependent upon the steam engine to drive with rapid revolutions the armature of a dynamo between two electro magnets and induce a current of electricity, which collected by the brushes from the commutator is sent along the wires in circuit with the machine. These currents may be either continuous and galvanic, or alternating and faradic, according to the make of the dynamo. These circuits range from 50 to 5,000 volts, and to 20,000 volts in the alternating and from 5 to many thousand amperes. As a general rule, when used for lighting purposes the voltage is high, and when used for power, the amperage. In the case of Tesla's machines the voltage is too high to compute.

It would not do to fondle an arc circuit of voltage 3,000, amperes 7. Those 7 amperes multiplied by 3,000 volts make nearly 30 horse-power, which would cause death. This is a splendid circuit for charging storage cells. It may take a little longer to give them their quantity of amperes, but the number running through them being so slight it does not injure them and they will remain in good order for years.

Neither would it do to have the street-car circuit in your office. To short circuit this would sink the wire hot through muscle and bone. This circuit carries many amperes and possibly 1,000 horse power, and would, I fear, be dangerous, no matter how cleverly you arranged your circuit from it.

Note the difference in the death-dealing blow of these two deadly currents. The one by the shock and no burning, the other by both shock and burning.

As the alternating dynamo currents are used for incandescent lighting and for electric welding and small electric motors, we have little or no use for them, because

we cannot change this current back into a continuous current. In incandescent electric lighting by interposing the so-called *converter*; their voltage is reduced to 50 and 100 in our buildings and is the current with a transformer to make to heat a cautery knife and they make a fair faradic current for medical uses.

The continuous circuits running at about 100 volts are the easiest to manage. Those of 500 volts and the distributing power circuits for mechanical purposes of this voltage will nip you very sharply in short circuit, especially at the moment when you make or break them while you can easily stand the 110 or 200 volts in the dry hands and not feel it except when you break or make the circuit.

The distribution of electricity is very peculiar when you come to make practical use of it, and I know of nothing parallel in physics or mechanics.

The voltage you have always with you, not so with the amperage. Suppose you have a hundred volt circuit and on this circuit you are opposing no work or resistance, in other words, no lights are burning, no motors are running. Now say this circuit is able to do 25 horse-power of work, or in other words, to overcome a great many ohms in resistance to it, and if called upon to exert its full quota of amperes. A 16 candle power incandescent lamp requires about $\frac{1}{2}$ an ampere of current to white heat it, a 32 candle power, about 1 ampere. Now you cannot place this lamp in that circuit because all the amperes of the current will go through and break it. If you place one lamp you will have to make up a series of enough of these lamps to cover all the amperage in the current to make one and all of them burn in the main circuit. How then are we going to light one lamp off of this current?

This is what is called arranging in multiple arc, to-wit: take the current, on a second wire (a loop in circuit with this main one), and now curiously you may draw off any amount of current, from a small part of an ampere to the full capacity of the dynamo, according to the amount of resistance you may put in this so-called circuit. Now your $\frac{1}{2}$ or 5 ampere light will burn only its quota but the voltage is still the same.

The circuits that go to our houses and offices are managed in just this way from the mains. Why the voltage should go,

but not the amperage, unless the latter is called for is a property of electricity. In charging storage cells on this circuit, do not try to hasten matters by allowing of too many amperes passing; you will gain the same result with more time, or in other words more coulombs in ampere hours, and your storage cells will be in less danger of wear and tear. If you are opposing no work on this multiple arc arrangement, the storage cells are receiving no current. If one 16 c. p. light is burning on the arc or loop in which the cells are, then one-half an ampere is running through; two such lamps are sufficient for a period of a few nights.

As the current enters the house, it is for safety made to run over the lead fuses.

This is very important, for it allows of no amperage passing over it of more than a given number, according to the size of the fuse, and thus protects against lightning stroke, and what is more important in case your wire should cross with an arc light or street car circuit; in this case it must burn out the fuse the instant such a current reaches it. Also, should you accidentally short circuit any of your wires, for the opportunities are many among the exposed binding posts and gas pipes in ground circuits, etc., no injury (short circuit to dynamo) can happen along the main wire, and you can quickly replace your fuse with another. It may be of explanation to some to mention here that a handful of earth in resistance is a miserable conductor, but the earth collectively is the greatest of all conductors, and as a current of electricity will always take the easiest way to get around to the opposite potential, it will prefer the nearest gas pipes to get back to the dynamo by way of mother earth rather than the wire, every time you allow it an opportunity. This is the reason in cities that now the telephones depend on a return wire, not as formerly (and as the telegraph now does) on the earth to bring the current back in circuit. This does away with the buzzing sound in the receiver caused in certain instances, by the return earth-current of the different street car and other currents to the dynamos in cities.

An electric motor is simply a dynamo reversed according as would for continuous or alternating current. The dynamo generates and sends its current out from its brushes along the wire. It

is then received by the brushes of the motor, then to the magnets, which attract and repel, which then turns the shaft of the motor as the armature revolves. To regulate the speed of a motor, reduce the amperage; this will necessarily reduce the power and can be done by any rheostat designed for this purpose.

The means of reducing the continuous dynamo currents for galvanism and electrolysis I shall first describe (with batteries you already understand). Then I shall describe how to reduce the alternating dynamo current for the galvanocautery or faradic current.

Reducing the Continuous Current in Amperage and Voltage.

In the early history of electric lighting the Edison continuous circuit dynamo was in use. Those fortunate enough now to be able to use such a circuit need not be bothered with battery cells. Unfortunately there are few of these dynamos now in use, except 500 volt circuits for power.

One can see that it is easy to reduce the amperage of the incandescent continuous light circuit of dynamos of 100 to 200 volts. Any resistance or rheostat, like coils of German silver or iron wire, will do this.

But how about the voltage? You can't reduce the speed of the dynamo at the power house; so what are you to do?

An adapter is a combined rheostat and shunt of some resistance wire, so arranged that the amount of resistance for the reduction of amperage can be taken off this resistance wire at different lengths by some contact arrangement, thus diminishing it at regular intervals. To reduce the voltage by adapters, as a rule, incandescent lamps are used on the principle of a shunt, which consists of some low resistance, but joining the main multiple arc wire in use in such a manner that the path through which part of this current will now pass depends upon the relative resistance of the shunt and the full amount of voltage of the circuit you are using. Each time a shunt is made the voltage is reduced about a half, as is likewise the amperage to a great extent affected.

In this way the circuit can be reduced to an ordinary galvanic battery and be nicely regulated by a switch and used, for adaptation of the continuous current of high electromotive force (voltage), such

as galvanism, electrolysis, etc., though, of course, not as cautery nor magnet. For in as much as the electro-cautery and the electro-magnet for eye purposes require more amperage than the fuses will allow to pass, and if you increase the size of your fuses and take such a great amount of amperage off the dynamo, the chances are that the lights from it will be greatly depreciated for the time being, and your call for all this strength will be inquired into by the light company.

There is still a greater objection. You can not well use this current, for with all this voltage and amperage, should you short circuit any part of the patient's body from the cautery, the shock would be terrific. If you had shunted the voltage for this purpose (to do away with the possible shock) you have also reduced the amperage, and your fuses would have to be just so much the larger, and you would ask for just so much more current from the dynamo. There is no reason why this can not be done, but you would reduce the lights in the circuit every time you turned the switch of your cautery with this great amount of amperage.

Reducing the Alternating Current in Amperage and Voltage.

The alternating currents are from quite high voltage dynamos but when they enter the buildings they are reduced, as a rule, to 50 or 100 volts. This reduction is made by the same means that I shall presently describe to reduce them still further for medical purposes, namely, for the cautery and faradic current.

I have said that the alternating current is a faradic current, and to make this meaning plain I shall now describe in a general way the peculiar variations of the continuous and alternating currents and the names now given to these distinctions.

Currents that flow in one direction I have called galvanic currents, which change direction or go back and forth I have spoken of as faradic currents because they have this properly in common and are also more especially induced currents, just as the faradic current is induced in faradic coils by a galvanic battery. A continuous current may be *pulsating* or *steady* or it may *intermit*; it may be generated thus from the dynamo and the circuit by some means may be rapidly made and broken; it will never change direction, however. Now an alternating cur-

rent always changes direction. These currents may flow back and forth so many alternations in a second, such a current would be *symmetrical*. One in which the current wave out, differed from the current wave back would be *dissymmetrical*. The first are produced, generally, by alternating dynamos; the second, as a rule, by faradic coils.

A *sinusoidal* current is a symmetrical alternating one which periodically changes its direction and magnitude but in which the change is very marked. In other words it is a long, smooth current wave, equal back and forth.

The reduction of alternating currents is rendered on the principle of induction, in which the coils composing the primary bear that relation to the secondary and a ratio made according to the amount of reduction desired. This, if the primary current be 1,000 volts the ratio to reduce to 50 volts would be 1:20 and the number of turns in the secondary coil would be in this proportion.

It is essential in medical work, on account of different size of cautery instruments and where one wishes to use the current as a faradic one, to have some means by which the amount can be nicely regulated from zero to a considerable amount of current. In the Wilkinson Surgical Instrument Factory of Omaha, in order to do away with the switch, as used in most transforms, I have introduced the plan of a plunger which gives the smallest gradations of the current and is much less liable to get out of order, as there are no contact points requiring attention.

Diphtheria Treated with Antitoxin.

By W. E. FITCH, M. D., Durham, N. C.

The new therapeutic agent, Antitoxin, has been before us since 1890, when at the Hygienic Institute at Berlin, Behring first told us of its effects in rendering animals immune in diphtheria.

In a paper read before the International Congress of Hygiene and Demography in the summer of 1891, Behring detailed his methods and results, with which I suppose you are familiar, and will not burden you by recalling it here.

I see an article in your last issue on Diphtheria in which the author does not take to the new treatment, saying it costs

too much and too much trouble to get. Diphtheria treated according to *old* methods, tr. ferri chloridi and stimulants, the death rate was 51.71 per cent.; with the antitoxin treatment the death rate has been lowered to 5.8 per cent. as reported by Louis Fischer, January, 1895, in the American Journal of Medical Sciences. I think the lowest death rate, with antitoxin treatment, sufficient to repay any one the trouble and expense necessary to procuring antitoxin.

I have lately had some experience with the *new treatment*, and will report two cases for the benefit of those who have not used antitoxin.

Case No. I.—Z. C., aged four and a half years, had never been sick before. Examination showed lungs normal, both tonsils enlarged and covered with a greyish membranous deposit; discharge from nose thick, tenacious and profuse; cer-vicle glands swollen and painful; child drowsy; fauces angry, red and painful; much pain during deglutition; pulse 132, temperature $103\frac{1}{2}$, respirations 36. The usual harsh, croupy cough present; the tongue covered with white fur; thirsty; no appetite; urine very scanty and pale yellow colour, and contained albumen. I prescribed tr. ferri chloridi, 5 gtt. every hour, and rye whiskey, half teaspoonful every two hours. Next morning found patient had passed a restless night, irritable and fretful. Temperature 104, pulse 140, respirations 36. Tongue still coated; exudate on both tonsils deeper and thicker; had extended to uvula, and a diphtheritic patch had formed on the buccal surface of right cheek the size of a 10 cent coin. The whole diphtheritic membrane now had an ugly yellowish hue. I added to the treatment already noted Loeffler's solution as a spray.

R	Menthol.....	20 cc.
	Toluol.....	36 cc.
	Alcohol absolute.....	60 cc.
	Liq. ferri sesqui chloridi.	4 cc.

M. Et fiat solu.

Sig. With atomizer every two hours.

and ordered Behring's Antitoxin Serum by telegraph.

Third day. Found patient's condition unchanged, except the development of an efflorescence covering arms and chest, with considerable itching, urine contained albumen and still very scanty. Temperature 104, pulse 136, respiration 34; glands in neck swollen and painful; the whole back of throat covered with the

characteristic membrane; no appetite and swallowing the blandest fluids caused considerable pain; hard, rough, croupy cough. At 6 p. m. the antitoxin was received and I injected in the pectoralis region 10 cc., representing 1000 antitoxin units, of Behring's serum No. 2. At 8 p. m. the temperature had fallen to $102\frac{1}{2}$ deg. F., pulse to 120, and child sleeping quietly.

Fourth day. Child bright and playing with doll; temperature 101, respiration normal, pulse 109; membrane softening and slowly disappearing; appetite returning; pain in throat growing less troublesome. Stopped all other treatment.

Fifth day. Child sitting up in bed bright and cheerful, pulse, temperature and respiration normal, membrane all disappeared, child hearty and to all appearances well.

Sixth day. Child's condition in every respect normal, and dismissed cured.

Case No. II.—H., boy 8 years old, in Mr. H.'s family, where two children had died of diphtheria six weeks before, aged 9 and 12, who were treated by another physician of unquestionable skill, using the old remedies of our fathers, with the death of both patients. I was hurriedly sent for on June 7th to see this case, who lived 10 miles in the country. Was told by messenger that it was diphtheria, and they wanted me to bring that "new medicine" I was using for diphtheria. I supplied myself with antitoxin and syringe, and arrived at bedside 4:30 p. m. Found patient with following symptoms:

The exudate in fauces was very great, covering the tonsils, uvula, and the anterior half arches, and extending on the roof of mouth in front of uvula. There were signs also of nasal involvement, glands in the neck were enlarged and painful. Patient was in about the fifth day of the disease, had bled at the ant. nares two days before; had a temperature of $103\frac{1}{2}$; pulse 120, respiration 32; irritable, peevish, thirsty, and no appetite; in a listless, semicomatose condition; urine contained about 40 per cent. albumen, and very scanty. I injected 10 c.c. of Behring's antitoxin serum, representing 1000 normal units of antitoxin serum, No. 2.

June 9th, found patient better in every respect, albumen entirely gone, membrane softening and falling off, glands subsiding and not so painful; pulse 108, respiration 24, temperature $98\frac{3}{4}^{\circ}$ F.; heart's action good; patient bright and cheerful; would

drink all the milk allowed him. I ordered tr. ferri chloridi in five gts. doses every four hours, and whiskey, half teaspoonful, every four hours. Ordered Loeffler's solution as a spray every six hours and left.

June 11. Found patient in the floor playing with toys. Throat perfectly clear of membrane, and only slightly reddened. No albumen in urine; pulse, temperature and respiration normal; appetite good, feels well, and dismissed cured.

My experience with secotheropy has been very gratifying. I never used a therapeutic agent that gives better results to patient and physician. If I were to have diphtheria myself I would want the antitoxin treatment. I think we have in this remedy a potent factor for curing diphtheria.

Diagnostic Points.

By G. G. BUFORD, M. D.

Assistant to Chair of Physiology and Lecturer on the Nervous System, Memphis Hospital Medical College, Memphis, Tennessee.

An expert neurologist has said to mistake myelitis for rheumatism or multiple neuritis, was an unpardonable blunder. This would do for one skilled in nervous phenomena, but is not at all applicable to the busy physician. Hilton has formulated a well recognized law which, if remembered, will aid in a differential diagnosis between rheumatism and myelitis. Hilton's law is, the same trunks of nerves whose branches supply the group of muscles moving a joint, furnish also a distribution of nerves to the skin over the insertion of the same muscles, and the interior of the joint moved by these muscles receives a nerve supply from the same source.

A fact as axiomatic as the law of Hilton is the one that the brain always refers an impression to the point of distribution of the nerve conveying the impression. Pain is the impression, or the sensation, produced in the brain from irritation at some point of the nerve tract, whether near the origin along the tract or at the periphery, it is always referred by the brain and registered there as at the periphery or as located in the part supplied by the nerve conveying the impression, to which the nerve is distributed, whether this be a muscle or joint. Every pain has its distinct and pregnant meaning if we will but

carefully search for it and properly interpret it.

In myelitis and rheumatism we have painful sensations with seat of cause of myelitis, in or near spinal cord, and in rheumatism, when there is swelling and temperature, with cause at point of distribution and in both diseases, the brain refers the sensation as originating at periphery of the nerves.

In myelitis there is pain on voluntary motion and limitation of active motion; while passing motion can be made nearly complete without much increase of pain.

In rheumatism there is pain on voluntary motion and limitation of motion possibly by muscular stiffness, with considerable increase of pain.

In myelitis we have hyperaesthesia of of cutaneous surfaces, while in rheumatism uncomplicated we have pain on deep pressure. When the irritation is within or near the cord we find pain referred to the parts to which the nerves are distributed, but with very little limitation of function, while when the seat of the irritation is peripheral we have pain referred to the periphery, with limitation of function in proportion to the irritation.

The reason for the above is plain. In myelitis we usually have no inflammation or swelling of muscular tissue, consequently there is no pressure or excitement at the points of irritation when passive motion is made; while in rheumatism we have the nerves pressed by edematous muscular tissue, and all motions increase the pressure. Consequently increases the pain.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

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No one can be an accomplished physician who has not a good brain.

There is no profession which requires more brain, judgment, discretion, patience, celerity of action and to have yourself always thoroughly in hand, as the medical profession. A few minutes often may settle the question of life or death and if the physician becomes upset the moment in which life could have been saved, passes, never to return. Whereas had he been cool and collected with all his senses on the alert he could have averted the dire disaster.

The responsibility is great, so much the more reason why he should be amply prepared for any emergency.

The first thing then to be done is to get a thorough medical education, and he must or ought to have some practical experience before he commences his life work. He can get in this country all the knowledge that he will require.

Money ought never to be his main or only object. If it is, he does not love his profession. He should be gentle, kind, tender and sympathetic and with all, firm. He should treat the washer-woman with the same care that he would a Princess.

He should be thoroughly honest in all his dealings with his brother physicians and with his patients.

He should devote his best powers to every patient that comes into his hands. That, he should do whenever he accepts

the case, pay or no pay. In his early days of practice he will have more time than anything else and therefore can give it without feeling any deprivation.

He should take one or two good medical journals, so as always to keep abreast with the best men in the profession.

He should be a member of the local medical society, and take an interest in it. He should treat with respect at all times those who have grown gray in the medical profession. Doubtless he will meet some for whose medical opinion he has no respect whatever, but he need not show it. Think, what he pleases, but say nothing.

Never say anything derogatory about another physician. Do what is right no matter if he feels he was unjustly treated. Never talk about the ailments or peculiarities of his patients to others.

Never try to detain a patient when he sees that they desire some one else.

If he is a gentleman he will require no code of Ethics to tell him what to do. If he is not, no code of Ethics will make him do right.

He must win success by deserving it and not trust to luck. Cure your patients and they will do your advertising. Let your results and your patients speak for you. He must have love for his kind and he can't be a gentleman without being courteous to all with whom he comes in contact. Gossip ought not to be any part of his business.

If he is in doubt about his diagnosis he should never fail to examine every organ by questions or physically. Then being a competent man a consultant will not come in and find he has overlooked the trouble. Never be overbearing in expressing an opinion, because you are absolutely certain it is correct. But don't yield to any one when you know you are right. Withdraw from the case rather than yield under such circumstances. Maintain your own self respect under any, and all circumstances. In a long life there is nothing more valuable to you. You know things about yourself that no one else can know.

The good of your patient must always be your chiefest aim, and if any means adopted for that end redounds to your benefit, well and good. But do not look out for self first and then your patient.

Never tell lies or in any way deceive no matter how it may hurt at the time.

The future will show, you are a man to be trusted and those who forsook you, will come back to *you and never leave you*. Children intently recognize a good and loving heart and you never deceive them. They will believe you until they find out you lied to them and then they never trust again, unless after many years. Tell them the medicine is bad, if it is and they will trust you. But if you say it is good, when it is not, they know you lied. When you know the people are condemning another physician when it is unjust, do not be mean enough not to correct them.

The greatest aid to success is *common sense*, a good heart and bull-dog tenacity.

Remember that a physician is always a student, and that if he grows rusty and ceases to take an active interest in the progress of his profession, he has no right to expect to retain his practice, and ought not. He owes it to his patients to give them the advantage of everything new that has been proven to be a success.

THE NEED OF SPECIALISTS.

The last two decades have wrought a complete change in the theory and practice of the healing art. The physician who should awake after twenty years sleeping would find himself a veritable Rip Van Winkle. The energy displayed in the pursuit of wealth, knowledge and pleasure is simply phenomenal. The discoveries and inventions of this period have marked an epoch in the progress of men and nations, and the evolution and advance in the medical world is no less positive and radical. The growth and development in pathology, bacteriology, therapeutics and surgery have kept pace with those changes so apparent in the scientific and material world. This expansion of general knowledge and scientific research have stimulated and increased the needs and necessities of all human kind, until the demands upon the resources of the world have become so clamorous and peremptory that former methods are entirely inadequate to meet the necessities of the times. This has been largely remedied by a division of labor and a corresponding concentration of effort, the intensity of which has not yet expended itself, and when this hot haste after the attainment of that which

is just beyond our present ken, will stop, is one of the unsolved problems of the closing years of the 19th century. While the push for the front rank in medicine is less erratic and demonstrative than that in the secular world, the aggressive professional spirit is such that the allignment of today is lost in the displacement which tomorrow brings. The want of time, if no other limitation enters into the problem, makes it impossible for a single mind to grasp and master all in medicine. The highest attainment makes it both necessary and wise that there should be a division of labor with a corresponding concentration of study in special lines of work. This fact furnishes the reason and the motive for the specialist. Certainly no busy general practitioner whose daily round of duty is not limited to the usual hours of toil of the laborer, the artizan, the tradesmen or other professional men, can expect to find time for that patient and persistent study of one subject which is a *sine qui non* to its mastery. The general practitioner who makes himself known to the circle in which he moves as a universal specialist is a danger to society. Equally to be dreaded is the man who assumes special knowledge and ability for special work, who by study and experience has not in some fair degree demonstrated his fitness for it. Not every one who says "Lo here" or "Lo there" is entitled to public confidence, and much of failure and needless suffering could be obviated if the public was properly advised how to select proper men for special work. This is too often undertaken without the consent and knowledge of the family physician, and not infrequently the sufferer falls an easy victim to some unscrupulous pretender. The medical profession has and will continue to show appreciation and confidence in those whose love of special work is the motive which prompted them to it, and whose faithfulness thereto is not measured principally or alone by the honorarium. How gratifying to the general practitioner and how blessed to his patient are the ministrations of the capable and conscientious specialist, who brings hope and healing to the sufferer in a great crisis which carries with it issues of life and death. A fitting commentary on such relationship as may and does exist between the general practitioner and the specialist is found in the masterly

analysis of the character of Dr. MacLure by Ian MacLaren, when Sir George of London in his exciting and almost tragical visit to the Highland home at Drumtochty saved the life of Annie Mitchell. Here the reader cannot fail to note how the skill of Sir George grows pale in comparison with the aggressive heroism of Dr. MacLure which recognized the necessities of the situation and planned to its successful accomplishment.

THE SYSTEMATIC REMOVAL OF TUBERCULAR GLANDS.

The removal of tubercular glands, in order to be of permanent benefit, must be done systematically and thoroughly. The older methods of interfering with those glands only which had broken down, opening and draining them, or of removing such glands only as were palpably enlarged, served generally no better purpose than holding the process temporarily in abeyance, eventually to be followed by a gradual extension to neighboring glands, with ultimate involvement of some vital part, as the lungs or the meninges, or, the last gland intervening between the affected area and the main lymphatic vessels being passed, involvement of the general circulation and general military tuberculosis.

These incomplete operations, consequently, must give way to those which include the extirpation of all the glands in the region infected, as well those which are impalpable through the skin, as those which are palpable; and any one having tried the systematic operation can testify to the surprising uniformity with which numerous glands are found infected, which could not be discovered prior to their exposure in the field of operation.

In the neck the systematic operation includes exposure of the internal jugular vein throughout its entire length, with removal of the glands, in one mass with connective and adipose tissue if possible, from the clavicle up to the styloid process additional incisions being made into the submaxillary region and subclavian triangle if necessary. Provisional ligature of the internal jugular vein low down should be made to prevent air embolism in case the vein is wounded; and the spinal accessory nerve must be preserved.

In the axilla the axillary vein, the structure most liable to injury, is first exposed, then the whole mass of glands and adipose tissue separated from the axillary vessels with systematic ligation of the branches of the vessels before severing them. The long subscapular nerve, accompanying the subscapular artery, must be isolated and drawn out of harm's way before dividing that artery.

It is only by such complete operations as those outlined that a satisfactory percentage of permanent recoveries can be expected.

CIRCUMCISION.

THE CUTTING OFF OF THE PREPUCE.—

The rite was enjoined upon Abraham who was commanded to perform the operation on the masculine gender of his posterity to be the sign of the covenant of God with the Patriarch, when he renewed to him the promise of the Messiah—Gen. xvii, 10 to 26 verse.

Physicians have in the past regarded circumcision beneficial from a medical or sanitary view. It was practiced by the Arabians, Israelites and Saracens, the descendants of Abraham, but especially by the Israelites to whom it was ordained as the initiatory ordinance into the Hebrew church. This, however, with all Levitical ceremonies was supposed to have been abolished by the perfect mediation of Christ, if viewed from a Christian stand point. See Acts xv, 1 to 24th verse.

The Israelites are denominated the circumcision, the Gentiles the uncircumcision—Romans iv, 9.

Circumcision of the heart, mentioned in Phil. iii, 3 and Col. xi, 2, we will leave to the ministers, believing it figurative language that can be better elucidated by them. I will return to the penis with scissors and Phymoses forceps in hand and remove the foreskin of the physical organ while they explain and expound the above text.

Just the difference between heart, soul and penis really is we'll also leave for their explanation; but really most men (and clergy I believe are men) think, or seem to think, as much of their penis as if it were really the residence of the soul. To be honest, I think most of us are particular as to who, how and when ours is to be manipulated, and for what cause.

After the above preliminaries I am

ready to take a sanitary view of the operation. The circumcised are more cleanly, less liable to contract disease, not being burdened with a superfluous amount of foreskin with its corrugation and delicate lining of mucous membrane, a favorable soil for microbial life, and develop as a remedy for reflex neurotic conditions, also incontinence of urine in male sex and bed wetting, &c.

I well remember a young man, of 18 or 19 years of age, who was brought to me for treatment some three or four years since. He was bashful, shy of females, and when not in company became gloomy, morose, talked childish and acted like one who did not possess sense enough to come in out of the rain. From his general appearance I thought him mentally unsound. His mother was very anxious about him, being a widow and he her only child. She said he was so changed; was losing his mind, if not already gone; believed it a sequel to a spell of fever.

I made careful examination and found the foreskin adhered to glans penis on both sides, with quite a lengthy prepuce. I circumcised him and gave him some bitter tonic; gave the medicine to entertain him and convince the mother that something was being done for him. He made a complete recovery in a short time.

I have performed the operation on a great many patients within the past ten years, and for various pathological conditions for old and young, never without good results. The only recorded bad results is when Jacob persuaded Scheckem to have himself and subjects circumcised after Scheckem's son had ravished Dinah, Jacob's daughter, and on the third day, while they were yet sore, these godly marauders, Jacob's sons, killed all of them. Again, I find myself looking after the Jew's religious certificate in their writings.

For masturbation I would advise circumcision for the mental impression it produces upon the subject also the traumatism prevents the patient handling or otherwise experimenting with the organ which in its self be advantageous in breaking up the habit. In such habits the organ should be peeled forthwith.

I make no claim to being an adept in bible lore but surely think that if God institute circumcision He did it for its physical and sanitary advantage instead of its spiritual benefits as the Clergy would have us believe, I have never

seen the operation fail to be followed by good results if properly done.

I do it by clipping off a portion of the fore skin together with mucus membrane then crowd the mucus up into the fore skin, at the same time draw the fore skin out and over the membrane and the second time remove a second circular portion of skin then slit up the skin and membrane on top of penis to the corona glandis. I then round off the corners of both and take 3 stitches, one beneath near frantum, one on each side tied by bearing all of the mucus membrane fold back upon itself and attached to the denuded surface of the skin after the operation is completed the mucus membrane resembles and fits like a lining to a coat collar. If done properly I doubt if old St. Peter himself could differentiate between it and an Israelites religious certificate. Some arthodox denominations claim that Baptism was and is to take the place of circumcision, if so it is a poor substitute physiologically speaking and for earthly use the Shenny's religious certificate is far preferable as it is like the poor, always with them. Oh Shaw! I cannot keep away from theology while thinking of this subject, and in all these years could never persuade Theology and Physiology to agree on anything. Still to think of the subject from a Theological standpoint, makes me feel as if I possessed some ministerial qualifications and have a hungering for yellow legged chicken, a desire for female associates with slight inclination for controversy.

THE ADVANCEMENT OF SCIENTIFIC METHODS IN THE STUDY AND TREATMENT OF INSANITY IN PUBLIC ASYLUMS.

While the fierce arraignment which Dr. S. Weir Mitchell made some months ago of the insane asylums of this country, their management and their medical staffs was, by many friends of progress felt to be harsh, untimely and, in some instances, unjust, yet it must be admitted that his feeling of dissatisfaction is very generally shared by those physicians outside of insane asylums who are best qualified to criticise, viz.: the neurologists. It will be remembered that Dr. Mitchell produced letters from many of the foremost neurologists in the country endorsing his views.

In all fairness, however, it must be said that many of the faults and failures which belong to the insane asylums are wholly or largely beyond the control of the medical men connected with them. Further, there have always been, since the days of Rush, some few physicians connected with insane asylums who have been scientific observers, and who have given to the medical profession, from time to time, much that was helpful. Moreover, administrative methods have constantly improved, and scientific observations and methods are on the increase.

But when from a purely medical point of view, (putting aside for the time being the humane and the administrative,) the enormous clinical material contained in American asylums is considered, the extreme paucity of scientific work, as judged by the literature is painfully apparent. Methods of treatment are so seldom dwelt upon that it is difficult to escape the conclusion that the insane asylums are places for custodial care rather than for active individualized treatment in keeping with the scientific methods of the day.

Every now and again, however, some excellent scientific work emanates from the asylums. For instance, observations of a high class of scientific excellence have emanated from the McLean asylum of Boston, from the Ogdensburg asylum of New York, and from the Alabama asylum at Tuskaloosa. The work of men in these institutions stand out so prominently that they deserve special mention; their examples deserve emulation.

In the St. Lawrence Hospital at Ogdensburg, for instance, such methods and practices as these are in vogue: Careful physical examinations, with critical examinations of urine, blood counts, &c., and such advanced therapeutics as rest-treatment, hydrotherapy (so long neglected), thyroid and bone marrow feeding, along with exact observations of trained nurses; daily clinical conferences of the medical staff; separation of acute, convalescent, recent and chronic insane; a position for assistant physicians above those of mere clerks, with every encouragement to make the most careful clinical observations; individualized treatment of the insane.

Quite recently there comes from New York (in whose hospitals for the insane it may now be fairly said that there is being done more good clinical and scien-

tific work than in those of any other State) two very encouraging evidences of this awakening interest in the scientific aspect of psychiatry. A pathological institute for all the State Hospitals for the insane in New York has been founded and put under the direction of Dr. Ira Van Gilson, whose name stands for scientific progress and accuracy, and who will have given him the best facilities for doing good work. By the authority of the New York State Lunacy Commission, "The State Hospitals Bulletin," a quarterly publication made up of contributions by the physicians of the State Hospitals of New York, has sprung into being, and the two numbers so far issued, give evidence of most excellent work being done in the New York Asylums. The publication is highly commendable and can scarcely help being a stimulus to scientific research in the asylums of New York.

The New York example is well worthy of the consideration of asylum authorities in other States.

THE REPORT OF THE AMERICAN PEDIATRIC SOCIETY.

So much has been written during the past few months in opposition to, and in favor of, the use of antitoxin in the treatment of diphtheria, and based in so many instances upon a single author's experience in a limited number of cases, that the report of the American Pediatric Society upon its collective investigation into the use of antitoxin in the treatment of diphtheria, submitted at the Montreal meeting, is, to say the least refreshing.

The report reflects credit upon the committee, not only on account of the magnitude of the undertaking, as shown by the number of cases reported, but also because of the greater difficulty encountered in collecting accurately the data from private practice; diphtheria being practically excluded from our hospitals.

In view of the fact that all cases, except those in which the diagnosis were questionable, were included in the report, and that among those included we find fifty-eight cases which were moribund at the time of injection, and that two hundred and twenty-nine of the four hundred and fifty fatal cases received the injection not sooner than the fourth day of the disease. Elements which would serve materially to raise the mortality per cent. rather

than lower it. We feel safe in saying that the fairness of the report has been exemplary.

The report gives us accurate working statistics, culled from the experience of over six hundred physicians, from different sections, in the treatment of five thousand, seven hundred and ninety-four cases of diphtheria by the use of antitoxin.

The total mortality was 12.3 per cent. or eliminating the cases dying within the twenty-four hours, and the moribound cases, a mortality of 8.8 per cent.

Of the 4,120 cases receiving the injection during the first three days including the moribounds a mortality of 7.3 per cent. is reported.

Of the 1,448 injected on or after the fourth day the mortality was 27 per cent. The total percentage of cases complicated with Broncho-pneumonia was 5.9 per cent.

There are several important points to be noticed and conclusions to be drawn from this report. Incidents to the story proper told by the accompanying figures.

The injection should be made as early as possible after the diagnosis is made, without waiting for a confirmation from the bacteriological investigations. There is no reason for believing that antitoxin causes nephritis.

The small percentage of Broncho-pneumonia occurring in these cases certainly diminishes the patients chances of being carried away by it as a concomitant.

Over six hundred of the six hundred and fifteen physicians reporting cases are now advocating its use.

It is true that a few deaths have occurred immediately following the injection. In the report given us there were three fatal cases in which the injection was probably the cause of death though this is not proven. Must we give up an agent which greatly reduces mortality on this account?

Have we discarded ether or chloroform as anæsthetics for a similar reason?

There is also another class of cases in which negative results are reported where the injection was made during the first three days. The number of such cases was nineteen, that is one case out of every 305 treated according to our best knowledge fails to respond to our medicine. We have seen this occur in much larger proportions with other medicines.

• If there has hitherto been a doubt in

the mind of the conservative practitioner as to whether or not he should use antitoxin in his cases, the time has arrived when it should be dismissed.

He has no other agent which can give him such results as we have before us; his duty is plainly marked out. There are still some discretions, most of whom have faught bitterly in the past and who cannot give up without a struggle, we believe them honest in their convictions, but cannot agree with them in the face of recent advances.

THE DOCTOR TRIUMPHANT.

The effort made by the "old line" insurance companies to reduce fees for medical examinations from five dollars to three dollars has ended in failure. Whether three dollars is ample compensation or not, does not enter into the question. The "old line" companies had for years been paying five dollars for each examination where the policy was for \$2,000 or less. When they cut the fee to three dollars the examiners began to protest, and some went so far as to resign. They were told their places could be easily filled.

The question was thoroughly discussed by the companies on one side and the examiners upon the other, in the columns of the Medical Examiner, a most excellent Journal devoted to the task of making more competent the corps of physicians acting as life insurance examiners.

Both sides were ably represented, and the examiners seem to have had the best of the argument. And now we may look for a return of the five dollar fee, as the example has been set by the "Equitable Life-Assurance Society of the United States."

This company announces to its examiners its return to the old rates, and the other great insurance companies will undoubtedly soon follow its lead.

A few thousand physicians, each with a tender spot, however small, might be the means of helping to popularize assessment insurance.

But the real reason for the return to the old rates is probably a sincere desire of the companies to please their examiners. If a man has done good work for a company, such work is usually fully appreciated. It is not every physician who can do good work as an insurance ex-

aminer, at least without special preparation. Many medical schools are now giving special instruction in life insurance examination as a part of their course of Study.

THE TREATMENT OF DYSPESIA BY RESTRICTED DIET.

There is scarcely any one complaint which the physician encounters so frequently in the practice of medicine as dyspepsia, or chronic indigestion; and equally so is it true that scarcely any other disorder is treated by such a variety of drugs and restrictions—all of which prove more or less inefficient and unsatisfactory. Patients who are sufferers of dyspepsia usually go the rounds of all medical men within their reach, applying from one to another until each physician in turn has treated the dyspeptic for a greater or less time. The text books of to-day in speaking on the subject of chronic indigestion, dwell largely upon the benefits derived from a *restricted diet*. Most writers on the subject advising a certain list of articles to be written out and given the sufferer that he may partake of, all else outside of this small list are forbidden!

While we believe in a restricted diet to some extent, we are equally satisfied that it is carried entirely too much to extremes. A great many physicians continue to narrow in on the list allowed such patients until they eventually get down to tea and stale bread. Finding then even the trouble not removed, they give the patient to understand that the disorder is incurable and they must remain on tea and bread as miserable creatures the remainder of their days.

Rarely, indeed, do we see such treatment avail much benefit. On the contrary the patient becomes morose and cross, taking little interest in the affairs of his business or of life generally, and all around him are made equally uncomfortable by his unpleasant disposition. We think in such cases far better results are derived by advising the dyspeptic to eat slowly and carefully a mixed diet, and to be guided largely by his own desires what he shall partake of, believing, as we do, that the cravings of the stomach itself is the best guide to follow. If the patient has been a sufferer for some years anything he may eat will probably give him some inconvenience but because it should

do so *once*—is no reason to discard the food entirely—try it several times, and in most instances the stomach will, in a short time, tolerate it and do well.

We believe in restrictions from too much fats, pastry and sweets. All else can be partaken of to a reasonable amount. As regards medical treatment, very little is needed. If digestion is slow give some anti-acid to keep the food sweet until digestion begins. The most important point being to secure a daily evacuation of the bowels by some mild aperient.

Having found from experience that far better results are obtained where we are temperate and conservative in all things, we, therefore, advise conservative measures, and suggest in such cases the abolition of too much restriction in diet, and the adoption of a mixed food, regular and temperate habits, a proper amount of exercise either on a bicycle or horse back, and our results will prove far better in these obstinate and unpleasant cases.

THE COMING DISINFECTANT AND GERMICIDE.

Whatever is new and novel in medicine nestles close to the doctors heart, and unless he stops his ears to the siren song which the manufacturing pharmacist sings the risk of being lured to destruction is imminent and perpetual. Among the prominent agents now in use, one possesses germicidal properties, others only an inhibitory action; one is corrosive and irritant, another offensively repulsive from its smell. One of the latest is formalin— $\text{HCOON} + \frac{1}{2}\text{H}_2\text{O}$ —a 40 per cent. aqueous solution of formaldehyde is obtained by passing the vapors of methyl alcohol over glowing coke or platinum spirals. The desirable qualities it is said to consist in its being non-irritative, non-corrosive and non-poisonous. Its germicidal power in solution of $\frac{2}{10}$ of 1 per cent. is said to equal, or exceed, that of 1 to 1000 mercuric bichloride.

A well known director of a prominent medical laboratory states that in a O_2 solution the bacillus of diphtheria, streptococcus erysipilatis, and streptococcus aureus are destroyed in three minutes.

Another use to which formalin is applied is when it is in combination with gelatin, by which it is claimed continued molecular antiseptis is induced in incised

wounds and suppurating cavities by means of the liberation of formalin vapor.

Surgeons have noted the fact that the tardy repair and ulceration so frequently observed in septic wounds when disinfected by peroxide of hydrogen, and treated with a very weak solution of formalin, took on healthy action, and prompt healing was thereby promoted.

Sternburg's statements as to its power in promptly destroying the staphylococcus pyogenes aureus is high testimony to its germicidal properties.

The use of this agent by the Brooklyn Board of Health, after careful study by competent experts, is another evidence of its value. It is well that every physician and surgeon should familiarize themselves with it and learn, both from clinical and laboratory experience, the proper place it occupies in the role of a germicide and disinfectant. Schering puts it on the market in a 40 per cent. aqueous solution of one pound packages.

THE MOST EFFICIENT METHOD FOR RAPID DELIVERY WITH OS UTERI, UNDILATED, AND A VIABLE CHILD.

There are nine or ten different methods for inducing labor, but the most of them require time to bring it on. There are cases in which, unless the uterus is emptied within one or two hours at most, the mother and child too may be lost; and it is in such cases you want rapid delivery.

Take for instance a woman who is having violent puerperal convulsions at full term; face intensely congested, pulse full and bounding, from 125 to 140 per minute. No matter what remedial measures you may adopt, in addition you want to empty the uterus as soon as you possibly can.

If the convulsions continue, passing out of one into another, she is liable to be destroyed by the tetanic condition due to the convulsions, interfering with foetal circulation.

What then we want is the most rapid way to empty the uterus of its contents with the greatest safety to both mother and child.

The patient must be chloroformed, and if the index finger cannot enter the os uteri, any one of the numerous uterine dilators can be used in order to enlarge it sufficiently for that purpose. A hot

douche with any of the disinfectants may or should be used first and with the hand and arm rendered as nearly aseptic as possible. Introduce the hand into vagina and one finger into cervix, with the other hand on the fundus uteri. You can run that finger around the cervix and separate the membranes from the uterine walls as far as the finger will reach. Then pull on the anterior lip of the cervix with that finger. The head prevents the posterior wall of the uterus from giving away, and as a consequence the opening of cervix is enlarged, within a minute or less time you will be able to insert a second finger into the cervix. Pursue exactly the same course as you did with the first finger, and in a short time the third will enter and so on until the entire hand can enter, pass it through the cervix until it enters the uterine cavity at the side of the head, then close the hand and pull it out gently through the cervix. Then wash your hand thoroughly in hot water and immerse it in a solution of creolin and hot water, and replace it into the uterus and close it and withdraw it again closed. It will not take longer than fifteen or twenty minutes to do this and then you can apply the forceps to the foetal head, and finish your dilatation with them. If properly done there will be no danger in this to either mother or child.

This part of the operation I carry out in the following manner:

Whenever I am going to make traction on the head, with the forceps, I direct chloroform to be administered and I pull for about a half minute putting the cervix on the stretch. Then let up for one or two minutes, at the same time stopping the chloroform. I continue in this way at times pushing the cervix with one or two fingers over the head of the child while I am making traction, and I watch the tension of the cervix while I am making traction. In this way the average time for delivering the child will not be over an hour.

The safety to the child is insured by the intermittent tractions imitating natural labor. And there is no reason why there should be any more danger to the child, than in a normal labor where the "waters" had escaped before labor commenced. In such a case the head of the child has to accomplish the dilatation of the cervix. And it is made to do the same thing by means of the forceps.

Convulsions occur more frequently in primipara and in those cases if the pelvis is normal the head will be found well down in the pelvic cavity.

In multipara the head may be at the superior strait or not at all engaged. In such a case doubtless there are many who would advise or prefer to perform version, instead of using the forceps. As for myself I would prefer the forceps even at the superior strait. I think there would be less danger to the child, and the delivery could be made more rapidly. The soft parts of the child would have to help in the dilatation and the consequent pressure would be very apt to interfere with foetal circulation, when version is chosen in preference to the forceps.

About five years since I was called, at 8 or 9 a. m., to see a lady who was in "labor." She told me she had been married twenty years, and had never been pregnant before; that her "pains" had commenced on the previous afternoon and had continued all night at intervals of two and a half minutes. I made an examination and could not find any cervix uteri. The head of the child could be felt through the anterior wall of the uterus. I thought at first the cervix must be high up posteriorly in the hollow of the sacrum. I passed my fingers high up posteriorly and with my other hand externally pushed backwards the anterior wall and fundus uteri, but every thing felt smooth. At one point about where I thought the cervix ought to be I could feel a slight depression. I had a set of Hanks' dilators with me, and took the smallest size and entered the point where his depression existed, not larger than an English pea. The dilator passed in to the side of the head, and between it and the uterine wall, and then followed with the other sizes, and after the largest size had been used, then inserted my index finger and my middle finger. I dilated the cervix with fingers until it was as large as a silver dollar and then left the case to nature for six hours, thinking the dilatation would go on of itself. But at the end of that time no progress had been made, and then with a physician to give the chloroform, I finished the dilatation in the manner already described until the forceps could be applied, and with them delivered the child as previously described. The child was all right and the mother had no trouble.

After applying the forceps the child was delivered within less time than an hour. In this case there was no urgent necessity for immediate or rapid delivery. But she had had no sleep the night before and I wanted to deliver her before night, so she could have a good rest.

SEPARATE INSTITUTIONS FOR EPILEPTICS

Now that New York and Ohio have separate institutions for the care of epileptics and a large private institution for the same class of unfortunates is to be started in Pennsylvania, interest in the matter has become active in several other States (for example, Virginia and Illinois) where the subject is now being agitated.

To Dr. Fredrick Peterson, of New York, belongs the credit of being first to awaken interest in this subject in the United States. Several years ago Dr. Peterson visited the famous colony for epileptics at Belafeld in Germany, which has been in active operation for thirty years. It is a small village containing a number of dwellings (permitting classification), stores, work shops, schools, a church, &c., with ample acres for agricultural works. The non-institutional character of this colony, with the excellent opportunities which are afforded for diversified labor, together with the excellent home-like care and hygienic treatment which the inmates receive, so greatly impressed Dr. Peterson that upon his return to New York he described the colony in detail and begun to advocate the erection of similar colonies in the United States.

It would surely seem that the epileptics are best cared for in colonies of this kind, and with the practical success of those at Gallopolis, Ohio, and Sornea, New York, it may be expected that many States will, in the near future, see fit to establish others. For certainly those who are most frequently brought in contact with epileptics realize most strongly the peculiar misfortune of these sufferers when fits occur so frequently that the ordinary occupations of life are closed to them. No existing institutions are suited to them—neither hospitals for the insane, almshouses or general hospitals where they are found—and on the other hand epileptics are demoralizing factors in all these institutions. Experience has amply proven that they get along best together, com-

monly proving mutually helpful to each other. Moreover, in these special colonies many epileptics are, by their labors, able to do much towards their own support. All in all there are the strongest kind of reasons pointing to the wisdom of the erection of separate epileptic colonies by the several States.

THE DIAGNOSIS OF GALL-STONES.

The diagnosis of gall stones is a comparatively easy matter when there is present jaundice, putty colored stools, and severe pain in the region of the gall-ducts, and these symptoms having directed attention to the evacuations from the bowels the diagnosis is made certain if stones pass. These are the extreme cases. To-day when operative measures are so frequently resorted to to give relief from this disease it behooves one to study, not merely the cases which give such positive signs, but those slighter cases which may at any day become severe to an extreme that is dangerous. A prominent surgeon recently remarked that in all his experience with gall-bladder surgery he had not more than once made a positive diagnosis before the operation by the passage of the stones.

Sometimes the symptoms are altogether gastric. A furred tongue, anorexia, and vomiting, and nothing else have been noticed more than once in cases which proved to be gall-stones. Occasionally there will be a slight sallowness of the skin, or the eyes will be a little yellow, or the evacuations will be a very little paler than natural, or there may be a dull, heavy, aching feeling in the right hypochondriac region. In these cases with the slighter symptoms, the erroneous diagnosis has been made of neuralgia of the side or stomach, gastric catarrh, dyspepsia, enlargement of the liver, *et cetera*.

If medical means are even of any advantage it is in the slight cases of gall-bladder trouble. If surgical measures are the only means of real relief it is better to resort to them before the common duct has become impacted by a stone that may be removed with the greatest difficulty and danger. Besides, as is well known, the danger of the operation is comparatively *nil* as long as the stone is in the gall-bladder; in a jaundiced person an operation is attended with great risk.

Attention to these cases may relieve some physician who has been vainly attempting to get his chronic dyspeptics well.

Finally, when the symptoms in a given case point to the possibility of gall-bladder or liver trouble, it is worth while to consider the advisability of an operation that may be primarily merely exploratory.

THE REMOVAL OF THE NEAREST GROUP OF LYMPHATIC GLANDS AS A ROUTINE PROCEDURE IN OPERATIONS UPON MALIGNANT GROWTHS.

For some time past it has been a rule of surgery to remove the lymphatic glands of the region nearest to a malignant growth in the direction of the lymphatic current from the affected area, if the glands are palpably enlarged; the failure to recognize any such enlargement through the skin upon careful examination being considered sufficient reason for non-interference. Later the dictum gained strength that in every case of operation upon the breast for malignant disease the outer end of the incision should be extended into the axillary space and the contained glands removed at the same sitting with the removal of the breast; and such procedure is now set down as an essential part of the operation.

The inconsistency of confirming such practice to the operation of removal of the breast soon presented itself, so that at present the most advanced surgeons do not consider any operation upon a malignant growth as completed until the adjacent lymphatic gland area has been cut down upon. In cancer of the lip the submaxillary region must be explored; in disease of the upper extremity, the axilla, and, in case the growth is located on the lower extremity, the region of the saphenous opening in Scarpa's triangle, these glands being in each case the nearest ones in the course of the great majority of the lymphatic vessels.

The necessity for such extension of the operation will become apparent to any surgeon who will carry out the procedure, for he will seldom fail to find enlarged glands which could not be detected by palpation through the skin. While it is true that in some cases this enlargement is inflammatory, due to secondary infection from microbes gaining an entrance through the seat of the original growth,

the probability in a given case is that it is of malignant character.

Consequently, we admonish: In operating upon malignant growths, remove the glands from the nearest lymphatic area, whether they are palpably enlarged or not.

THE IMPORTANCE OF THE PRESERVATION OF MOTOR NERVES IN OPERATIONS.

To Kocher, in his "Operative Surgery," we are indebted for emphasizing the importance of preserving the motor nerve supply of the region of an operation, and for devising a series of incisions located so as to meet this end. He points out the fact that cutting through a muscle which can be reunited, leaving no permanent defect other than an *inscriptio tendinea*, is a light matter as compared with severing its motor nerve supply and thus causing atrophy. In the abdomen, he observes, the long vertical incisions external to the rectus muscle favor the development of hernia by causing paralysis of this muscle.

In making an incision upon the face, one must think first of all of its relation to the facial nerve and its branches; for what more serious injury could one produce upon the face than paralysis of a large group of the facial muscles, to say nothing of the result of cutting the main trunk of the nerve!

In all operations one should, in locating his incision, have at least as great regard for the location of the motor nerves as for the location of the vessels, these two factors taking precedence over the possibility of involving a muscle and the correspondence of the incision with the cleavage lines of the skin, it being a fortunate circumstance that in a majority of cases the latter coincide with the direction of the motor nerves.

Not only in the location of the skin incision should the nerves be borne in mind, but also in working in the deeper structures. In resection of the elbow joint, for instance, the most important structure to be avoided is the ulnar nerve. Nerves likely to be overlooked are the spinal accessory, when operating in the posterior cervical triangle, the severance of which results in drooping of the shoulder, through paralysis of the trapezius muscle; and the long subscap-

ular nerve in the axilla, which supplies the latissimus dorsi.

BOOK REVIEWS.

A SYSTEM OF MEDICINE. By Many Writers. Edited by THOMAS CLIFFORD ALBUTT, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A. Vol. I. New York: MacMillan & Co. 1896.

This is the most complete, compact and comprehensive work that has ever been our pleasure to examine. This is the first volume of a series of six which are soon to follow in proper order. The work before us contains about one thousand pages, interspersed here and there with beautiful engravings and handsomely finished colored plates, which add greatly in simplifying the many truths and facts herein to be found. After considering the introduction which embraces twenty-two closely filled pages giving a clear and concise history of medicine as a system, science and practice, methods, terminology, &c., &c., the editor then divides the work into two great divisions. Division I., Prolegomena. Among the chapters discussed under this division the first is that of Medical Statistics, which is quite an intricate, interesting, complex and historical section. Following this are considered Anthropology and Medicine, by John Beddoe. An interesting chapter on Temperament by Jonathan Hutchinson.

Probably the most important and lengthy chapter under the first division is that which treats of Inflammation. Eighty pages are devoted exclusively to this subject, with five pages of select Bibliography, and it is written by John George Adami.

The Doctrine of Fever is the next subject discussed by J. Burdon-Sanderson. It is divided into two parts. In the first, which is the introductory, the subject is treated in the order of time. Beginning with Virchow an account is given of his doctrine of Fever; then follows the doctrines of his most distinguished contemporaries and successors in the field of Pathology—Traube, Liebermeister, Senator, Leyden, &c., &c. Next subject in consideration, and of equal importance is the General Pathology of Nutrition by Dr. Mott; General Pathology of New Growths by Mr. Shattock and Mr. Ballance, Principles of Drug Therapeutics, by Dr. Leech; Climate in the Treatment of Disease, by

Dr. Herman Weber and Dr. Michael G. Foster; Artificial Aero-Therapeutics by Dr. Theodore Williams; Balneology and Hydro-Therapeutics. by Dr. Herman Weber and Dr. Parks Weber; The Medical Application of Electricity, by Dr. Louis Jones; Massage, by Dr. Kearsley Mitchell; The General Principles of Dietetics in Disease, or the Food of the Sick, by Sir Dyce Duckworth; The Diet and Therapeutics of Children, by Dr. Eustace Smith; Nursing, by Miss Amy Hughes; The Hygiene of Youth, by Dr. Dukes; Life Assurance, by Dr. Symes Thompson. Thus it will be seen from Division I. that the scope of the work is almost unlimited.

Division 2 is entitled "Fevers," and is divided into Part I, in which Sir Joseph Fayrer writes an article on Insulation, or Sun Stroke; and Part 2, which is entitled The Infections. Under the latter we have monographs entitled The General Pathology of Infection, by Dr. Kanthack; Septicæmia and Pyæmia, by Mr. Watson Cheyne; Erysipelas, by the same author; Infective Endocarditis, by Dr. Dreschfeld; Puerperal Septic Disease, by Dr. Playfair; Furuncle Carbuncles, by Dr. Melson; Epidemic Pneumonia, by Dr. Whitelegge; Epidemic Cerebro-spinal Meningitis, by Dr. Ormerod; Influenza, by Dr. Goodhart; Diphtheria, by Dr. Gee, Dr. Thorne-thorne, Dr. Kanthack, and Dr. Herringham; Tetanus, by Sir George M. Humphry and Dr. Sims Woodhead; Enteric Fever, by Dr. Dreschfeld; Cholera Asiatica, by Dr. MacLeod, Mr. Ernest Hart, Dr. S. C. Smith, Dr. Kanthack, and Mr. J. W. W. Stevens; Plague, by Dr. J. F. Payne; and, finally, Relaxing Fever, or Famine Fever, by Dr. Rabagliati and Dr. Westbrook.

Space will not permit us to enter into a discussion of each of the articles of which we have given the titles, but we can only say that from a standpoint of to-day each paper presents the very best up to date work of a well recognized authority on the other side. Each paper is excellently prepared.

The publishers have done their work in a most estimable manner. The plates are very fine. We commend the work to our readers as a safe and valuable book by which to be guided.

A MANUAL OF OBSTETRICS. By W. A. NEWMAN DORLAND, A. M., M. D. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896. Price, \$2.50 net.

The volume before us contains more

than 750 pages, elegantly printed and well bound. This work is a thoroughly systematic and rational presentation of the subject, told in a very easy and terse manner. The author has used every measure that, in his opinion, would facilitate the aims of the student or the busy obstetrician. To ensure ease of reference, a system of paragraphing, italicizing, and numbering has been followed; all unnecessary divisions into chapters and artificial sections have been left out, and wherever possible carefully selected diagrams and illustrations have been inserted to still further elucidate the text. All measurements are given in the metric system, with the English equivalents in parentheses. The work contains a large number of diagnostic tables, in their proper places, which constitute a prominent feature of the book; by their aid the various diagnoses may be made with unusual facility, and a comprehension of the stages of the mechanism of labor becomes a matter of ease. The recent rapid strides in the knowledge of the pathology of the many morbid states encountered in obstetrics have rendered possible a more scientific classification of these conditions.

In this respect especial care has been taken in the preparation of the book. Pre-eminent among these innovations stands the classification of puerperal sepsis, than which there is no more complicated or obscure subject in obstetrics. I should not fail to mention the grouping of the hæmorrhages of pregnancy, of those of the puerperium, and of those of the new born, as well as of the presentation of puerperal eclampsia, contracted pelvis, and extra-uterine pregnancy, in all of which departments especial progress has been made within recent years.

The complete index, with numerous cross references, add materially to the efficiency of the book.

PRACTICAL POINTS IN NURSING. For Nurses in Private Practice, with an Appendix. By EMILY A. M. STONEY. Philadelphia: W. B. Saunders, 925 Walnut St. 1896. \$1.75 net.

This work includes in its logical division, the following seven sections:

I. The Nurse; her responsibilities, qualifications, equipments, &c.

II. The Sick-room; its selection, preparation, and management.

III. The Patient; duties of the nurse in medical, surgical, obstetric, and gynecologic cases.

IV. Nursing in Accidents and Emergencies.

V. Nursing in special medical cases.

VI. Nursing of the new born and sick children.

VII. Physiology and Descriptive Anatomy.

The author has explained in popular language and in the shortest possible form the entire range of private nursing distinguished from hospital nursing, and clearly instructs the nurse how best to meet the various emergencies of medical and surgical cases when distant from medical and surgical aid, or when thrown on her own resources; studiously refraining, however, from advising the nurse to act upon her own responsibility, or to assume personal treatment of the patient except under circumstances of great urgency.

One especial feature about the work is the directions to the nurse how to improvise everything ordinarily needed in the illness of her patient.

The work contains a fine index which gives much information in compact form that will be of value, and presents a ready medium for quickly consulting any desired topic. The volume also contains numerous illustrations which are serviceable aids in making clear the application of certain lines of treatment falling specifically to the work of the nurse.

It is written clearly and concisely, and fulfills the purpose for which it was written.

MANUAL OF MIDWIFERY. For the Use of Students and Practitioners. By W. E. FOTHERGILL, M. A., B. Sc., M. B. C. M. New York: The MacMillan Company. 1896.

This is a well prepared and very interesting work of nearly 500 pages, and will prove invaluable to any one interested in this subject. While it is not so voluminous as many that have recently been introduced, it is thoroughly up to the times, and is well calculated to answer the purpose of the general practitioner who desires to brighten up on the important features. The first chapter is taken up with a good description of the external genital organs, uterus and ovaries. Recent theories on menstruation, ovulation and conception have been stated in chapter II. The formation and fate of the decidual are restated in chapter III, while modern views on the relation of the ovum to the decidual and on the development of the placenta will be found in chapter IV.

The subject of ectopic pregnancy, so

mysteriously and poorly understood by the practitioner, has been considerably simplified. Its importance has demanded full consideration in chapter VIII.

In chapter XII the mechanism of labor has been clearly restated in the light of recent advances due to the study of frozen section. The author has devoted a special chapter on the Sectional Anatomy of Labour, with a discussion of the third stage. The use of hot water in hemorrhage has received full consideration. The evolution of the forceps, culminating in the axis-traction instrument, has been carefully described. The question of forceps *versus* turning in flat pelvis has been discussed, as has the use of Walcher's position.

The index is complete and accurate. In short, the book contains a large amount of accurate and useful information in a comparatively small compass, and we commend it to the examination of all interested in the subject, for they will be able to find in it much of value. The type and general make up of this volume are good and do credit to the publishers.

HEMORRHOIDS AND OTHER NON-MALIGNANT RECTAL DISEASES. Diagnosis and Treatment. By W. P. AGNEW, M. D. Third Edition. Pacific Press Publishing Co., San Francisco, Cal. 1896.

There is no organ so prone to become diseased as the rectum. There is no class of cases so little understood and treated as rectal diseases. There are no diseases so annoying and painful, and at the same time producing such dire results on the general system, directly and reflexly, as rectal diseases. Hemorrhoids being by far the most common among this class of ailments in private practice, and the greatest bone of contention relative to the best manner of effecting a radical cure has been given precedence in the author's consideration, and receives the attention that their importance and dignity justly merit.

Not only is the subject of Hemorrhoids clearly considered, but that of Fistula, Rectal Ulcer, Stricture, Prolapse, &c., are also fully treated, especially as regards their treatment. In the treatment of Hemorrhoids the author very prettily pictures the horrors that patients look upon an operation for the disease, and the suffering and tortures they will undergo seeking palliative relief.

The author is a great believer in the

treatment of Hemorrhoides by Carbolic Acid injection. He says that this treatment has not been placed before the profession upon a practical and scientific basis, nor has it been fairly represented, but on the contrary is hampered by undue prejudice and misunderstanding, and is made responsible for the results growing out of the defective knowledge of those seeking its adoption.

One great trouble with books upon this subject was that beginners could not find a starting point. They did not know intelligently how to engage in a rectal examination—did not know what to expect, where and how to find it, and how to pursue each succeeding step in applying the treatment after a diagnosis has been made. The successful treatment of hemorrhoids naturally leads to the investigation and treatment of other forms of rectal trouble, by virtue of the close relationship existing between the different kinds of diseases affecting the rectum, one disease of this organ often being mistaken from the subjective symptoms for another; therefore, all non-malignant rectal diseases have received a fair share of notice in the present volume, giving the most approved and rational plans of treatment to date, which will the better enable the ethical physician to forestall and root out the itinerant and advertising local specialist, as well as to compete with his wide-awake fellow practitioner, and in this way retain his own clientele, secure the fees arising therefrom, and maintain his social standing and dignity in the community in which he resides.

The book has many good illustrations, and is nicely gotten out.

A TREATISE ON SURGERY for Students and Practitioners by American Authors. Edited by ROSWELL PARK, M. D., Professor of the Principles and Practice of Surgery and of Clinical Surgery in the Medical Department of the University of Buffalo, Buffalo, New York. In two large and very handsome royal octavo volumes copiously illustrated with engravings and full-page plates in colors. Lea Brothers & Co., Publishers, Philadelphia and New York. Per volume, cloth \$4.50 net, leather \$5.50 net.

The early publication of Park's "Surgery by American Authors" will place in the hands of students and practitioners a work thoroughly reflecting the science and art of surgery in its most modern and cosmopolitan development, and fitly sus-

taining the honorable position universally accorded to America in the surgical world. The Editor's recognized eminence has brought him the willing co-operation of gentlemen of the highest ability and experience, and his accurate acquaintance with their special lines of distinction has been skilfully utilized in the assignment of subjects, so that the work as a whole will be regarded as a production of the highest authority.

That Park's Surgery will rapidly achieve a foremost position as a textbook is evident upon a glance at the appended table of contents, showing that the work represents the methods of teaching developed in the leading medical colleges of the country. The benefits arising from such knowledge of the best modes of imparting instruction will be seen in the exceptional clearness with which the material is presented, as well as in the skilful selection of topics which allows space for full, practical details concerning everything of importance. From these considerations it will be obvious that the work will equally serve as a text-book for students and as a standard and indispensable guide for the general practitioner as well as for the specialist in surgery. Ease and quickness of reference will be promoted by the most-approved typographical arrangement.

In point of richness and beauty of illustration Park's Surgery will mark a departure in surgical literature, the engravings and colored plates being largely original, and introduced whatever clearness and fullness of information can be aided by pictorial effect.

To attain the utmost convenience in use, the work will be divided in accordance with the most modern views into two volumes, one of which will deal with Surgical Pathology and General Surgery, and the other with Regional and Special Surgery. The advantages of this plan are too obvious to need presentation.

LIST OF AUTHORS:—William T. Bel-
field, Herbert L. Burrell, Edward H. Bradford, Arthur D. Bevan, Clarence J. Blake, Charles Stedman Bull, D. Bryson Delavan, Frederic S. Dennis, Duncan Eve, James H. Etheridge, John A. Fordyce, Frederic H. Gerrish, Arpad G. Gerster, Hobart Amory Hare, William A. Hardaway, James M. Holloway, Charles B. Kelsey, Robert W. Lovett, Rudolph

Matas, Henry H. Mudd, Charles B. Nancrede, Roswell Park, Charles D. Parker, John Parmenter, Joseph Ransohoff, Maurice H. Richardson, Chauncey P. Smith, Edmond Souchon.

PRACTICAL DIAGNOSIS. The Use of Symptoms in the Diagnosis of Diseases. By HOBART AMORY HARE, M. D., B. Sc., Professor of Therapeutics in Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Medical Society of London, of the Royal Academy in Belgium; Corresponding Fellow of the Sociedad Espanola de Higiene de Madrid; Member of the Association of American Physicians, Etc. In one handsome octavo volume of about 600 pages, with 188 illustrations and 13 colored plates. Lea Brothers & Co., Publishers, Philadelphia and New York. Cloth \$4.75.

Hare's Diagnosis marks a radical change from the course followed in existing text-books on this subject.

Up to the present time the student or physician when puzzled by a case had to make a provisional diagnosis and then, turning to his reference book, read the article on the disease which he believed to be present. If he found that the symptoms there detailed did not correspond to those presented by his patient, he was forced to make another provisional diagnosis and read other articles until he found one which agreed with the clinical picture before him.

In the present volume the author describes the symptoms first and reaches the diagnosis afterwards, as does the physician in actual practice. Thus in the chapter on the Feet and Legs, under the part devoted to the consideration of paraplegia, will be found a description of the symptoms and associated signs of the various diseases producing that condition and the name of the malady, or in the chapter on Vomiting is given a description of the forms of vomiting and their causes.

The volume may therefore be described as the first attempt to construct a method of rational diagnosis, by which the student may ascertain from his examination of the patient the disease which he is called upon to treat.

The marked welcome which has greeted the Text-Book of Practical Therapeutics, by the same author, amply proves his appreciation of the necessities of students, and in framing the present volume he has

endeavored to follow lines which will enable it to be advantageously used as a companion work. It will form an octavo volume of moderate size, and anticipating for it a wide field of usefulness, the publishers will place it at a figure which will prove attractive to students.

THE MULTUM IN PARVO AND REFERENCE DOSE BOOK. By C. HENRI LEONARD, M. A., M. D., Professor of the Medical and Surgical Diseases of Women, Detroit College of Medicine. Flexible leather, 143 pages, price 75 cents. Detroit, 1896: The Illustrated Medical Journal Co., Publishers.

This is a recent edition of the Dose Book, of which the title page informs us some forty thousand copies have been issued. The present edition is printed on very thin paper, and is bound in red leather, round corners, so as to make it specially light and handy for the pocket; the weight is not two and a half ounces. Besides the doses of some 3,500 preparations being given, it has numerous tables, such as the solubility of chemical, pronunciation of medical proper names, poisons and their antidotes, incompatibles, tests for urinary deposits, abbreviations, table of fees, etc. It will be found a handy pocket companion.

LUCIUS Q. C. LAMAR, His Life, Times and Speeches, By EDWARD MAYES, Ex-Chancellor of the University of Mississippi. Nashville, Tenn. Publishing House of the Methodist Episcopal Church, South. Barbee & Smith Agents. 1899.

This is an exhaustive and faithful biography of the South's Great Patriot and Statesman; bringing into view the thrilling and important eras of The Struggle over Slavery Extension, Secession and the Civil War, Reconstruction of the Southern States, Renaissance of the Democratic Party, Reconciliation of the Alienated Sections.

The work is a royal octavo, of 820 pages, with sixteen full page illustrations, presenting portraits, (single and in groups) of Mr. Lamar's family, and of numerous distinguished statesmen and jurists; bound in muslin, and executed in the best style. It sells for five dollars. Second edition just coming out will sell at three dollars; first was exhausted in 60 days. This price places the book in the reach of all; and it is printed in the shape adopted, in order to give the reader matter which commonly makes two octavo

volumes, selling at from seven to eight dollars.

The latter part of the book contains a full account of Mr. Lamar's career as Secretary of the Interior, and of the interests and policies of that important office under Mr. Cleveland's first administration; and also an account of Justice Lamar's career on the Supreme Bench of the United States. There is, besides, an appendix, containing a collection of all such of Mr. Lamar's speeches of general and permanent interest as have not been incorporated into the body of the work.

The essence of the work is an account of the reconciliation between the North and the South after the Civil War, culminating in the restoration of the South to her proper place and influence in the Federal Government.

TRANSACTIONS of the Medical Society of the State of New York for the year 1896. Published by the Society.

It is with pleasure that we welcome the advent of this copy of the Transactions of the Medical Society of the State of New York of 1896. The volume whilst not bulky, is of goodly proportion and illustrated, which do much to render the contents of the volume more useful as well as more attractive. We cannot enter into a detailed notice of the different papers and of the discussions thereon. It will suffice to state that the high standard of the Association has not only been maintained, but it has even been improved upon.

Too much praise cannot be accorded the secretary, for the very thorough as well as neat manner in which he has issued the proceedings. We only regret the fact that, contrary to the usual custom, no table of contents is given, as this would greatly facilitate a reference to its contents.

TRANSACTIONS of the State Medical Society of Wisconsin for the Year 1895. Volume XXIX. Constitution and By-laws and List of Members. Charles S. Sheldon, M. D., Secretary. Madison, Wisconsin: Tracy, Gibbs & Co., Printers and Stereotypers. 1895.

This is a most satisfactory and useful record of the Forty-ninth meeting of the Wisconsin State Society. It contains about 57 papers, which are interestingly and instructively discussed. The Secretary has performed his work in a thorough

manner. No medical society can prosper unless its secretary has executive capacity and literary ability. Both of these qualities are demonstrated in the book before us.

LITERARY NOTES.

LIPPINCOTT'S MAGAZINE FOR AUGUST, 1896.—The complete novel in the August issue of Lippincott's is "The Great K. & A. Train-Robbery," by Paul Leicester Ford. The scene shifts from one part of the West to another; the action has some rapid and surprising turns, especially when the actors are considered; and the result is an eminently readable and lively narrative.

Clarinda Pendleton Lamar is evidently at home "in Louisa County," and writes with full knowledge and affection. Her story brings vividly before us the rural Virginia of old, with its hospitality, its unworldliness, its primitive and peculiar charm.

"Golden-Rod and Asters," by Neith Boyce, is a tale of youth renewed after a long interval, and of a middle-aged rejuvenation.

It was the office boy of whom Evan R. Chesterman writes in "The Devil's One Good Deed," and the deed was one of life-saving and sacrifice.

George Montbard, a French artist now in London, tells of "A Narrow Escape" which he and a comrade had during the Franco-Prussian war, the result of a rash adventure on the outposts.

Francis Lynde was once imprudent enough to spend "A Summer on the Gulf Coast." Those who read his vivid description of that experience will wisely determine to follow the general custom, and go there only in winter.

"Heraldry in America" may appear to many an unpromising subject; but Eugene Zieber has much to say in exposition, defence, and praise of it. Rhoda Gale writes of "Immigration Evils," and sustains her argument by figures and facts rather than by declamation.

"The Federation of Australia," as lately proposed, is a topic just now much agitating our cousins at the antipodes, but little understood here. Owen Hall tells about it all that an American needs to know at present.

Emily Bailly Stone returns to her favor-

ite theme in "The Woman Question in the Middle Ages," and shows that, far from being wholly of our time, it existed five hundred years ago, though in a rudimentary and inchoate form.

James Knapp Reeve finds a summer subject for laudation in "The Blessed Bees." "The Editor's Incubus," according to Irving Allen, is the poetical contributor. Other editors might tell of heavier burdens in other shapes.

The poetry of the number consists of a sonnet by John B. Tabb and quatrains by Edith M. Thomas, Clarence Urmey, and Arthur W. Atkinson.

THE AUGUST FORUM.—The August number of The Forum contains no less than thirteen timely and unusually interesting articles.

The leading article, entitled "Mr. Godkin on the West: A Protest," is contributed by Mr. Charles S. Gleed, of Topeka, Kan., and is a vigorous and spirited reply to an article by Mr. Godkin, the editor of the New York Evening Post, which appeared in the May number of The Forum. Mr. T. S. Van Dyke, of Los Angeles, Cal., contributes a striking and forceful refutation of the free-coinage fallacy, entitled "The Financial Bronco." He declares that the ignorance of the West about the business methods of our country and of the world—full knowledge of which will alone settle the question in any sound mind—is equalled only by the ignorance of the East about the average western mind and the way to reach it. He declares that much of the financial literature sent West has failed of its purpose because of its abstruseness, and because most of the Eastern sound-money arguments assume a knowledge of trade that the West does possess.

Under the significant heading "Imperative Reasons for Republican Control" three distinguished members of the Republican party set forth convincing arguments for the success of their party in November. The first paper in this group is contributed by the venerable Senator Justin S. Morrill, of Vermont. He keenly analyzes the arguments of the advocates of free silver, and optimistically expresses the belief that few American wage-earners will be so dull as not to detect and expose the epidemical delusion of fifty cents' worth of silver when strutting as a

dollar. The second paper is contributed by Senator Shelby M. Cullom, of Illinois, who reviews the "Blunders of a Democratic Administration," laying the blame for our present distress upon the Democratic party, and pointing out what he believes to be the only remedy—namely, the election of Mr. McKinley. The third paper is contributed by Gen. Horace Porter, President of the Union League Club of New York City, setting forth "What the Republican Party Stands For"—namely, sound money, ample protection to American industries, sufficient revenue. He expresses his faith in the American people and believes that in November their verdict will be in favor of upholding the credit, prosperity, and honor of the country.

The Rev. Julius H. Ward, of Boston—a life-long friend of the late Harriet Beecher Stowe—contributes an extremely interesting study of the author of "Uncle Tom's Cabin." It is a careful estimate of her career, her place in literature, her moral aim—in short, an analysis of what went to the making of this great writer. "A French College Sixty Years Ago," is the title of what was probably the last literary work of the late M. Jules Simon. It is a review of his early career and bristles with interesting reminiscences. Mr. J. B. Bishop, in an extremely interesting and entertaining article, discusses the "Social and Economic Influence of the Bicycle." He asserts that bicycling is not a "craze," and predicts a still greater use of the machine. Mr. J. Gennadius, late ambassador from Greece to the Court of St. James, continues his fascinating account of recent archæological discoveries in Greece. A striking and suggestive paper, entitled "The Matrimonial Market," is contributed by Mr. Edward Cary. He adduces facts to show that the necessity of marriage to women as a means of livelihood is steadily decreasing in this country. Mr. Gerge Steward, editor of the Quebec Chronicle, points out the "Significance of the Canadian Elections," and their bearing upon the future economic relations of the Dominion and the United States. He believes that the first move of the new administration will be to send Sir Richard Cartwright to Washington with a view to negotiating a treaty of reciprocity between the two countries. An exceptionally brilliant article is con-

tributed by Mr. W. H. Mallock, the distinguished sociologist, entitled "Altruism in Economics." It is a brilliant refutation of Mr. Kidd's theory, as set forth in his "Social Evolution," that under the influence of an increasing fund of altruism in our civilization the few would divide their advantages with the many in such a way as to bring all members of the community however weak into the rivalry of life and condition of equality. Mr. Mallock contends that altruism would do nothing but intensify the very evils which Mr. Kidd and his followers imagine it would correct. Prof. William MacDonald, of Bowdoin College, sets forth what the scope and aims of "The Next American University" should be—a scholarly and suggestive paper.

SCRIBNER'S MAGAZINE, AUGUST, 1896
PUBLISHED JULY 25, 1896.—The Fiction Number of Scribner's Magazine contains six short stories and a little comedy, in addition to several special articles of wide popular interest, including the first paper in Mr. A. F. Jaccaci's picturesque account of his journey "On the Trail of Don Quixote," and Mrs. Alice Morse Earle's "Old Gardens," describing the old fashioned flower gardens that still persist in some New England villages.

Artistically, this issue contains several features new to magazine audiences. Vierge, the great French illustrator, seldom seen in periodicals, has made twenty-five drawings for the Don Quixote article that are his very best work. He will furnish abundant pictures for two more articles describing Mr. Jaccaci's interesting tour in La Mancha. Miss Cecilia Beaux, an American painter who has achieved distinction also in France, furnishes the frontispiece of this number—her first illustration for any magazine. Another artistic novelty is the series of marginal illustrations and decorative borders, painted in two colors and filling sixteen pages. Orson Lowell, whose reputation has been made as an illustrator by his work in this magazine, has made these unique drawings to accompany a brilliant little play by Annie Eliot called "As Strangers."

The cover, printed in twelve colors, is from a drawing by Will H. Low, and is the most elaborate ever made for an American periodical.

Other artists represented in the illustra-

tion of this number are Hatherell, Verbeek, Smedly, Frost, Clinedinst, and the Misses Cowles.

The short stories in this issue are all by American writers, and, is the custom with Scribner's Fiction Number, several new names appear that are likely to be heard from. It is a notable fact that many story-writers now eminent made their first appearance in these fiction numbers. "Charm He Never So Wisely" is the first magazine story of Eleanor Stuart—a tale of great beauty describing the love of a famous tenor for a princess. George W. Cable, whose reputation was won by his short stories, contributes "Gregory's Island," a powerful study of the reformation of a drunkard.

A certain type of young clergyman who has a better knowledge of theology than of human nature is depicted in Rollo Ogden's "From the Error of His Ways."

"The Maid's Progress," by Alston Goode, has to do with the love of a young college student for a girl who is enough older to see the mistake that the boy is making,

Humor and satire are furnished by "Mrs. Lofter's Ride," a sketch of a certain type of New York society woman by J. A. Mitchell, editor of *Life*, and Bliss Perry's New England village study, entitled "By the Committee."

The comedietta "As Strangers," by Annie Eliot, is amusing as a love-story, and, like most of the author's dialogues is well fitted for amateur theatricals.

The only continued fiction is Barrie's "Sentimental Tommy," which exploits one of Tommy's strangest pranks.

The first of Mr. Jaccaci's "Don Quixote" articles gives ample promise of a picturesque and lively narrative, which follows Cervantes and his creation through the ancient province of La Mancha.

Poems by R. H. Stoddard, Clinton Scollard, Mrs. Fields, George Cabot Lodge, and Henrietta Christian Wright complete the issue with the usual timely departments.

APPLETONS' POPULAR SCIENCE MONTHLY FOR AUGUST, 1896.—The August Popular Science Monthly opens with a discussion on The Proposed Dual Organization of Mankind, by Prof. William G. Summer, of Yale, who maintains that the Eastern

and western continents can not be isolated from each other in political or commercial or monetary affairs. The dominant subject in this number is the science of mind. Prof. J. Mark Baldwin, of Princeton, concludes his examination of *The Genius and his Environments* begun last month; Prof. W. R. Newbolt, of the University of Pennsylvania, treats of "Spirit" Writing and "Speaking with Tongues," examining these alleged powers in the light of modern science, and giving several facsimiles of the writing; there is also an account of Epidemic of Hysteria, by Dr. William Hirsch, one of Nordau's critics. An art based on psychology is represented in *The Aim of Modern Education*, a forceful essay by Dr. C. Hanford Henderson, will interest teachers who wish to make the coming year's work better than the last. Hon. David A. Wells concludes the historical division of his series on Principles of Taxation with a description of the Swiss cantonal fiscal systems. An account of the facilities for the study of science at the University of Pennsylvania, with many portraits and views, is contributed by Lewis R. Harley. Other illustrated articles are *The Stone Forest of Florissant*, in which Prof. Angelo Heilprin describes a group of agatized tree stumps in Colorado; *Early Years of the American Association*, by William H. Hale, with portraits of founders and early presidents of this great scientific society; and *The Scallop*, by Fred Mather. The subject of the usual Sketch and Portrait is William W. Mather, the Ohio geologist. The editor comments on woman suffrage and on a recent panic of devil-seeing in certain New York schools.

New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

The 50th Anniversary Number of the *Scientific American*, New York, just out, is a really handsome and valuable publication of 72 pages. It reviews the progress of the past 50 years in the various sciences and industrial arts; and the various articles by the best scientific writers of the day are racily written and richly illustrated. The editors have accomplished the difficult task of presenting a compendium of information that shall be at once historical, technical and popular. The interest never flags for a moment, and the story of the half century's growth

is in itself a veritable compendium of valuable scientific information for future reference. Price, 10 cents per copy.

The editor of the *Review of Reviews* continues in the August number his analysis of the political situation, with especial reference to the candidacy of Mr. Bryan, the Chicago platform, and the position of the Democratic party on the currency question. The *Review's* editorial comment on current events is still the best monthly summary of the kind that appears in this country.

How Much Pharmacy Should be Taught in Medical Colleges?

This question is the title of a paper read at Atlanta by G. Walter Barr, M. D., Professor of *Materia Medica, Therapeutics, etc.*, in the College of Physicians and Surgeons, Keokuk, Iowa, and published in the *Journal of the American Medical Association*, July 18, 1896. The subject is treated in a logical rather than dogmatic way, and the writer has a reason for each of the propositions he upholds. The paper is a plea for more care than is generally taken to teach in the best way the parts of a medical education in the proper proportion. The author holds that a certain quantity of pharmacy should be taught the medical student, to make him a safe dispenser of his own medicines in the country—and to prevent him being the laughing stock of the pharmacists if he writes prescriptions. Just what pharmacy should be taught in the time properly given to the chair of *materia medica* is given in detail; and the syllabus comprises a full consideration of the pharmacopœia, the National Formulary, the manufacture of the common galenic preparations valuable unofficial drugs, (in the laboratory); nomenclature; the relations of proprietary preparations to scientific medicine; prescriptions; and esthetic prescribing. The sentence, "Too often that professor who is most energetic in his college work has the most of the student's time, and the laziest professor is seen least at the college," indicates that times have not changed so much after all and will bring up delicious memories to many a silver gray practitioner. The author touches the practical point of text-books and

seems to favor Caspari's recent treatise as especially adapted to the physician and medical student. In conclusion he says he brings his paper to the medical rather than the college association, because colleges as a rule merely supply the demands of the profession, and the way to make colleges more universally supply a properly balanced curriculum is for the practitioners to send their students to the schools which are real teaching institutions and not merely an aggregations of wise men, specialists, or capable advertisers.

Treatment of Pyelitis.

Dr. J. H. Way of Waynesville, N. C., in a very interesting paper read before the North Carolina Medical Society, May 12, 1896, said:

The *treatment* of pyelitis will depend largely upon the causes inducing the disease. During an acute attack attended with fever, severe pain, and frequent passing of bloody and purulent urine, attention to the *primæ viæ*, with an opiate to allay spasm, warm diluent drinks, hot baths, hot local fomentations or wet cups over the affected kidney will meet the more prominent indications for treatment. Alkaline and antiseptic diuretics are probably productive of beneficial results in these cases. In chronic cases, and it is this class that are seen, or at least diagnosed, most frequently, where there are reasons to suspect the possible presence of stone, or other conditions which may at any time induce obstruction to the flow of urine, every effort should be made to counteract with suitable regimen, diet and tonics, the tendency to asthenia.

The patient's symptoms and the local conditions should be noted most carefully, and after a short time, if the indications of disease continues and the local conditions are unimproved, I believe it is then our duty to cut down upon the kidney and drain it. The use of the aspirator as a means of treatment is mentioned only to condemn it, increasing observation convincing me there are very few conditions of the human body where the scalpel can not be more advantageously used than the aspirator. As illustrating the application of the principle I desire to direct your attention briefly to a case recently operated upon with successful results.

On December 20th '95 I was consulted by my friend Dr. Wilson, of Sonoma, who gave the following history of his patient, presenting a specimen of the urine and requested my assistance in diagnosis and treatment: B. B., a tall angular, robust, mountain farmer aged 38, six or seven weeks previously after working very hard and exposing himself was taken with a pronounced chill followed by fever. Great pain and decided tenderness was early experienced in the left ilio-costal space. The urine was voided frequently and was often bloody and purulent. Chilliness from time to time continued with an intermittent type of fever. He became reduced in flesh and experienced night sweats. The urine continued as before. Sometimes the doctor thought there was possibly a small tumor in the region of the left kidney, at others he was not so sure of it, and even doubted the existence of any. I found the urine distinctly acid in reaction, albuminous, loaded with pus, blood and epithelial cells. A probable diagnosis of suppurative pyelitis was made, and an operation suggested. January 11th '96 I was summoned to see Mr. B., who told me that he had finally "consented to be cut if it could be done without taking anything"—meaning an anesthetic. He was quite reduced in flesh, pulse 126, temperature at 3 p. m., 102 $\frac{6}{10}$. Dr. Wilson stated that the same symptoms as previously detailed had continued present. The patient was placed upon the table, and as careful preparations were made as would be possible in a mountain cabin with one room 16 by 18 feet inhabited by the husband, wife, and seven children. Four ounces of whiskey was administered and a 4 per cent. solution of cocaine muriate was injected along the line of the proposed incision. An anesthetic with Inhaler was ready at hand for use in case the patient changed his mind. I must not omit to state however that he did not, and no anesthetic other than the whiskey and cocaine was used. A slightly oblique incision four inches in length was made extending from the last rib at a point from 3½ to 4 inches to the left of vertebral spines, passing a little forward as it descended to the iliac crest. The abdominal wall was carefully gone through being 2¾ inches in thickness at this point, when with the edges of the wound well retracted, the renal capsule

and the distended pelvis bulged slightly into the wound as backward pressure was made in front on the abdomen. This was opened when about 8 or 10 ounces of bloody purulent urinous fluid escaped. More or less thick flocculi or partially inspissated pus was found in the pelvis and calices of the kidney but no calculi. After thoroughly washing out the pus cavity a liberal pledget of iodoform gauze was carried to the bottom of the wound which was left entirely open. Dr. Wilson skillfully conducted the after treatment, daily washing out the cavity and gradually shortening his pledget of gauze. From him I learned that only for a few days was there any urinous flow from the wound which gradually filled from the bottom by granulation. The patient called at my office a few days since. He looks strong and well and tells me that he is entirely free from any symptoms of urinary disease. In answer to my inquiry as to the existence of any antecedent genito-urinary or venereal disease prior to the pyelitis he insisted on possessing a "clean bill of health from his youth up."

Dr. Booth in the discussion of this paper called attention to the fact that we are and may be misled in diagnosis in later stages of pyelitis, by suppurative inflammation of the kidney by examination of the urine. I was asked by a physician to make a post mortem examination for him on a little patient he had lost. The history of the little fellow was about this. He was a bright boy of about nine years of age. He was taken with pains in the back and lumbar region with swelling, I think, in the region between the hip bone and the ribs, and then in the lumbar regions. The doctor diagnosed the case to be abscess of the liver. He treated him a good while. Finally there was a good deal of swelling in the region I have mentioned and the little boy was taken to a surgeon. This surgeon did not declare his diagnosis, but made an incision just below the last rib, to the right of the lumbar region, out, of which poured a quantity of pus. He introduced a drainage tube, and sent the little fellow home. He went on from bad to worse, and died. As I said, I was asked to make a post mortem examination. In cutting into the abdomen, I found that the pus had burrowed in every direction. On coming to the right kidney, or where

the right kidney ought to be, I found that there was no kidney there, but simply the remains of the destroyed kidney. There were five large dumb bell calculi, ranging from an inch to an inch and a half long, with a diameter at one end of about an average of five-eighths of an inch and at the other of about three-eighths, and the ureter was literally destroyed by the inflammatory process. The surgeon made an examination of the urine, and found that it was normal. Of course none was secreted by the destroyed kidney. I do not know why the surgeon did not make an exploration. If he had he would have saved the little fellow's life. He might have extirpated that organ, washed out the cavity, put in a drainage tube, and possibly have saved the little patient. In these cases of pyelitis caused by the presence of calculi, I believe that with the proper diagnosis made early, we can save patients by the use of Buffalo Lithia water. There is nothing like Buffalo Lithia water to dissolve calculi. While we have various other valuable remedies that have the power of dissolving calculi, that No. 2 Buffalo Lithia is simply wonderful. I have seen a number of calculi cases where I have had nephritic colic stop entirely for years and not return. I believe that this is one of the greatest and best remedies we have in the early stages of pyelitis caused by the presence of calculi.

Medical College of Virginia, Richmond, Va.

Those who are interested in Medical Schools should read the announcement of the Medical College of Virginia, at Richmond, in this issue of the "JOURNAL." This is one of the oldest medical institutions in the South, being now in its Fiftyninth year, and justly deserves the exalted eminence it has attained in teaching both theoretical and clinical medicine and surgery. Among the long list of distinguished men who have held Professorships in this School may be mentioned the name of Dr. E. Brown-Sequard, who came from Paris, France, to accept the chair of Experimental Physiology. The present Faculty is composed of eleven professors, with a large corps of assistants. They are all able men, and are recognized as authorities in their respective departments.

This was the only medical school that did not suspend lectures during our late internecine war; indeed during that period two courses of lectures were given each year to prepare surgeons for the Confederate army.

The College is splendidly equipped in the way of Lecture Halls, Anatomy Rooms, Museum and Laboratories, but the increasing size of the classes has necessitated the building of larger laboratories, this is now being done, and by the opening day in September next, the handsome three story brick laboratory building will be ready for occupancy. The lower story of this structure will be used for the City Free Dispensary, which has heretofore been in the college building, and in which over sixteen thousand of the city's poor are annually treated. This, with other institutions of a similar character, furnish ample clinical material for the college. The Old Dominion Hospital belonging to the Medical College of Virginia is situated in the same grounds and is one of the best equipped hospitals in the land.

Disobedience as a Cause of Insanity.

J. H. McCassy, M. A., M. D., of Dayton, O., formerly Superintendent of the State Insane Asylum at Topeka, Kansas, in an article contributed to the Cincinnati Lancet-Clinic, July 11th, 1896, says:

The man whose destiny is unfavorably formed for him by his ancestors is to be pitied. It is not alone the inherited tendencies of his parents that come to him, but their acquired peculiarities as well. Frequently the inbred depravity increases with each successive generation, until his species become extinct through insanity, imbecility, or death in infancy. But this is not the fate of them all; many such families have great fecundity, and keep up the breed. Thank Heaven, there are influences obviating the effects of heredity! The tendency to produce the normal and healthy is stronger than the tendency toward the abnormal. Nature struggles incessantly to return to her primal condition and throw off "this man of the sea."

Where the tendency to abnormality is very strong, its victim dies before the age of reproduction, or nature stops his species by annihilating his power of reproduction.

Many persons are born with an inheri-

tance of vice and degradation. They are crippled from the very beginning, and have only half a chance for health and prosperity.

Hereditary traits do not necessarily make a lineal descent. Drunkenness in the father may cause epilepsy or kleptomania in his offspring, and hysteria or apoplexy in the mother may be followed by some form of insanity in her offspring.

Hereditary traits are more often transmitted through the mother than the father, owing to influence of impressions received by the mother during gestation.

The following are the most potent factors in the causation of insanity, viz.:

1. Heredity.
2. Unfavorable early environment.

The child that emerges from the home beset by altercations, broils and inharmony, is liable to be doomed to go through life with a hateful disposition, low morals, a weak will, and to be dominated by vanity and perverted passions. * * * Our insane asylums to day are filled with the "living dead," the human wrecks that become stranded and fail to hold their places in society as independent self-supporting citizens.

Dr. McCassy, who examined the statistics of various countries as to the causes of insanity gives us the following figures:

Heredity, 50 to 60 per cent.

Whiskey, 10 to 12 " "

Religious Perversion, 10 per cent.

Poverty and financial embarrassment, 10 per cent.

Sexual perversion, disappointment in love affairs, etc., 10 per cent.

The balance are due to miscellaneous causes.

Among religious sects, insanity is much more prevalent amongst the Quakers or Friends than any other sect, which does not argue in favor of gloom and sadness in religious worship.

A very low per cent. of insanity occurs among colored people, because their disposition is not toward worry. They let the future take care of itself, and are happy and contented, even with no more provisions in the house than a crust of bread.

If the vice and degradation of one generation would end with it, the question would be less appalling, and it would be unfair to attribute all mental aberration to disobedience to the laws of society and physical hygiene, but when we contem-

plate the damage done to the system, extending to several generations, we may be excused for attributing the cause of nearly all mental perversity to disobedience to nature's inexorable laws during the present or preceding generations.

During early life, when the reason and judgment exert but a feeble power, how necessary it is that the parent, guardian or teacher, should not only teach but enforce obedience on the part of the child. The child that grows up without having learned self-control and some self-denial, is at an immense disadvantage in assuming the duties and responsibilities of life.

* * * Proper parental government in a large measure exempts the child from mental aberration in after years. Condoning disobedience to parental authority fosters a disregard for the laws of society and health. The child naturally courts excuse for disobedience to authority. The later in life a person learns obedience, the greater risk he runs of being swept into the maelstrom of depraved habits. The prerequisite in a child's education is the lesson of obedience. From the cradle to the grave man is constantly in danger from the effects of violated laws. The essence of education is to teach the child obedience, to respect the rights of his associates, and to avoid being an invalid, a drone or a criminal.

The doctor illustrated his article by quoting several examples from his own observation. In one case two sisters who had three imbecile brothers, answered advertisements for wives and secured husbands in that way. The doctor asks the very pertinent question: What can we expect of such marriages? and answers it by saying, nothing but dismal results. Such marriages should be avoided. He again quotes an incident of three "scoffing" young men that stood on the bow of a boat as it pushed out into the Atlantic. The Captain apprised them of their danger, but they paid no attention until the waves washed them overboard, and, with great difficulty they were, by means of a life boat, rescued from drowning. He quoted a case of a ten year old girl who persisted in fastening a bunch of flowers on the bridle of a vicious horse, after the coachman cautioned her not to, but she paid no attention until the horse struck her on the face, marking her for life.

He says these cases are not uncom-

mon. They occur daily, and are quoted here to illustrate the fateful consequences of disobedience. The laws of society and physical hygiene are immutable, and any infringement of them is followed by penalties that must be paid in full.

The person that does ought to improve the morals of our race, and secure obedience to laws, adds a bulwark to the nation's safety and the nation's greatness, but he that does ought to degrade the morals of our generation and break nature's laws, commits a crime against the whole nation, because he throws a poison into a stream from which we all must drink.

Greece exalted with her matchless learning and art, and Rome—proud, imperial Rome—with the wealth and power of empires within her grasp, crumbled and went down in ruin when the morality of those nations was eclipsed by sensuality and vice.

Insanity of Pubescence.

In an article on the Insanity of Pubescence recently read before the Brooklyn Society for Neurology, Dr. Hiram Elliott, of Woodhaven, N.Y., maintains that youth is a resisting and highly recuperative period of life, and that therefore insanity is comparatively uncommon at this time; that those cases which do occur have rather a coincident than an intrinsic connection with pubescence itself, the chief causes being an insane heritage, vicious habits, and faulty bringing up; that mental alienation in youth does not usually conform well to any type, there being rather the greatest variation in the phenomena in most cases; that the patient's whole nervous system is in such an exhausted and irritable condition that its behaviour constitutes insanity. He claims that the prognosis is bad, but not wholly so.

As regards treatment, he said that "one glance at the patient suggests the first principle of treatment. Nature seems unable to make an adult out of this youth, chiefly because of the exhausted condition of his nervous system. Hence remove the irritation and repair the exhaustion. Plenty of fresh air, generous diet, little or no restriction of the patient's actions, except in very severe cases, and not too much medicine, are cardinal points. For attacks of frenzy, morphia and hyoscine are safe and effectual.

Antiseptic Factor in the Treatment of Typhoid Fever.

On June 7th, 1796, at the meeting of the Medical Society of Pennsylvania, Prof. D. Chris Lange, of Pittsburg, read a paper on the "Antiseptic Factor of the Treatment of Typhoid Fever." This antiseptis was practiced at the Western Pennsylvania Hospital, and the report was upon 60 cases of the fever.

The antiseptis is not addressed to the disease itself, but is employed to prevent the secondary infections called complications, which are due to the admission of the ordinary infective agents, these complicating the primary infection by the bacillus of Eberth.

The method embraces first, an antiseptic ward; the ceiling, walls and floors are washed once weekly with a solution of bichloride of mercury. The patients are made to wear bichloride underwear, lie between bichloride sheets and are washed every morning from head to foot with water. This constitutes the external antiseptis.

Next all the orifices of the body are kept scrupulously clean and antiseptic. After each stool the rectum is washed out with carbolized water, 1 to 100, and in females, the vagina once daily. The eyes are washed each morning with a solution of boric acid, as are also the ears and nostrils, both being kept plugged with cotton saturated with a solution of borax in glycerine. The mouth, most important of all the orifices of the body, is scoured, according to its condition, from 3 to 12 times daily with equal parts of borax and potassium chlorate, dry, and the patient is then made to gargle his throat. This constitutes the orificial antiseptis.

Thirdly, intestinal antiseptis is practiced by the exhibition of guaiacol or iodoform. Rarely a patient is tympanitic; when this happens the subgallate of bismuth or charcoal is given him, or he is made to drink hydrochloric acid lemonade.

Finally, general or constitutional antiseptis is attempted by the administration of one-eighth grain of calomel, three times daily, for the first week of the fever. After this time a teaspoonful of the following solution is given every three hours: Iodine grs. 4, potassic iodide grs. 15, syrup and an aromatic water, of each two ounces. The antiseptis, therefore,

is external, orificial, intestinal, and general, if this expression be allowable of a body infested with the typhoid germ.

The result of this treatment of 60 cases was the absence of all complications except the following: One parotiditis, one tibial periostitis, and two ear abscesses. The unavoidable accidents of this fever, intestinal perforation happened in one case which ended fatally, and hemorrhage in two which recovered. The only other death happened in a malignant case in which the diagnosis between this fever and meningitis was not made until the autopsy.

Pemphigus Vulgaris.

The last issue of the Virginia Medical Semi-Monthly contains the report of a case of pemphigus vulgaris by Dr. Hugh W. Henry. The paper is an exceedingly interesting one both on account of the comparative rarity of the disease and the fact of its occurrence during an epidemic of small-pox, which latter fact may well occasion the query as to whether or not there is during epidemics of small pox a special tendency to eruptive forms of cutaneous diseases, as there is to sore throat in epidemics of diphtheria and scarlet fever.

In the case referred to the patient, previously in good health, five weeks after a vaccination which took quite severely, developed a popular eruption which quickly became vesicular, first on his face and neck and which later involved the entire cutaneous, and mucous surface as well, being especially severe in flexures of his limbs and on points of pressure, as on elbows and spines of scapulæ, where bullæ were formed some being an inch in diameter.

The eruption attained its acme in about two weeks after its appearance, from which time it gradually subsided, being characterized however during its whole course by the appearance of successive crops of vesicles so that up to, and even during, convalescence it could be seen in all stages from a newly formed vesicle to the redish discoloration left at seat of those which had dried up and desquamated. No tendency to suppuration was observed except where the vesicles were ruptured from the friction of his clothes or otherwise irritated.

Among the peculiarities which may be

noted are, the appearance of the vesicle rising abruptly from the healthy skin, like blisters produced by drops of scalding water, the involvement of the mucous as well as the cutaneous surface and the existence in many of the vesicles of a plate of organized lymph covering the bottom and attached by margin or center to the skin beneath.

The constitutional symptoms were slight, apart from the discomfort occasioned by the eruption, and consisted chiefly in some moderate pyrexia during the greatest severity of the eruption and a nervous depression disproportionate to the physical discomfort and foreign to the patients normal condition.

Progress in Organotherapy.

In a communication presented at a recent meeting of the Philadelphia County Medical Society, Dr. Augustus A. Eshner stated that the basis of a great therapeutic advance was established when it was demonstrated by Eiselsberg in 1890 that the clinical syndrome resulting from total extirpation of the thyroid gland—and comprehended in the designation *cachexia strumipriva*—could be prevented by transplantation of the removed organ in a new situation. Schiff, who in 1856 had observed that extirpation of the thyroid gland was followed invariably in dogs by death, and who was able in 1884 to confirm his earlier observations, found that death could be prevented under these circumstances by grafting a portion of the gland beneath the skin, or within the peritoneal cavity. In 1877 Ord pointed out changes in the thyroid gland in cases of myxedema, and in 1882 J. L. Reverdin called attention to similar changes in the sequence of surgical removal of that gland. In 1883 Semon suggested a causal relationship between the loss of thyroid function and the resulting symptoms; and the validity of this proposition was shortly afterward established by an investigation conducted by a special Committee of the Clinical Society of London. In 1890 independently of the observation of Eiselsberg, Horsley suggested grafting of sheep's thyroid in the treatment of myxedema, and a little later this suggestion was successfully acted upon by Bettenbourn and Serrano. In the same year Vassale prevented the development

in dogs of the phenomena following thyroidectomy by intravenous injection of an extract prepared from the removed gland, and in the following year Murray treated successfully a case of myxedema by hypodermic injection of an extract of thyroid gland. It was soon found that the same good results could be secured by the administration by the mouth of the gland itself or of an extract prepared from it, and the long record of successes that has marked the therapeutic employment of thyroid gland in one form or other elicits the warmest admiration for the scientific acumen and the professional zeal that guided the successive steps by which the underlying principles of organotherapy have been established upon a firm basis.

Not only has the use of thyroid preparations been extended to the treatment of diseases other than those in which its utility was first demonstrated, but the principle on which this practice is based has been applied to a far wider range of therapeutic purposes; and almost every day brings some new development in this promising field. Already physiologists have succeeded in isolating from the thyroid gland a body designated thyroiodin, which is capable of much of the therapeutic usefulness of the gland itself. The benefits of the new therapy have accrued not only to the physician, but to the surgeon as well; for the latter has learned in the removal of organs physiologically concerned in some way in the bodily metabolism—and few, if any, organs are not concerned—to leave behind if possible a portion of the glandular structure.

The results obtained in the treatment of myxedema and cretinism with thyroid preparations have been uniformly successful. To insure their permanence, however, the treatment must be persisted in, though occasional intermissions are attended with good effects rather than otherwise. By organotherapy there is supplied to the body a substance or substances essential to metabolic equilibrium, but wanting through glandular deficiency. The effect ceases with the withdrawal of the agent with whose aid that equilibrium is artificially re-established. It must at the same time not be forgotten that the glandular preparations thus used are capable of harm when employed in excess and appropriate precautions should in all

instances be observed to prevent deleterious effects.

In view of the pronounced effects of thyroid therapy upon the cutaneous and subcutaneous and allied structures, as observed in the treatment of myxedema and cretinism, it was an easy step to the employment of the same measure in the treatment of other diseases in which the skin is affected. The results secured in the treatment of obesity with thyroid preparations have been scarcely less successful than those in myxedema and cretinism.

Thyroid extract has also been employed in the treatment of psoriasis, lupus, eczema, dermatitis exfoliativa, rosacea, universal alopecia, pityriasis rubra, ichthyosis, scleroderma and xeroderma, hypertrophic cicatrix, tetany, insanity, exophthalmic goiter, muscular dystrophy, and rachitis. Thymus gland has been employed in the treatment of pseudo-muscular hypertrophy and a mixture of red and yellow bone-marrow in the treatment of lymphadenoma. Bone-marrow has been employed with varying success in a number of cases of different forms of anemia, spleitic extract in the treatment of exophthalmic goiter, pancreatic extract in the treatment of some cases of diabetes, adrenal extract in the treatment of Addison's disease; pituitary extract in the treatment of akromegolgy; extracts of prostate gland in the treatment of hypertrophy of the prostate; ovarian extract in the treatment of the symptoms supervening at the menopause or in the sequence of surgical removal of the ovaries.

Senile Pruritus.

The New York Polyclinic for July has an original article by Ellice Alger on the management of Senile Pruritus, which usually receives very little attention.

"It rarely begins before sixty, generally originating as a temporary pruritus easily relieved, but gradually getting more persistent and extensive. There is no visible primary cutaneous lesion. The secondary lesions assume the form of scratches and excoriations, and occasionally a dermatitis results. The itching is often worse at night, and is increased by change of temperature and clothing.

The whole skin is much thinner than normal, owing to absorption of fat and cor-

responding atrophy of other cutaneous elements. It is dry, bloodless and poorly nourished. Exfoliation is delayed and the outer surface is rough and thick and dry; the muscles atrophy and the skin becomes loose and folded, and considerable pigment is deposited. The secondary lesions, while almost always present, are not at all in proportion to the amount of violence done the skin, and marked secondary lesions in a case of recent origin would be presumptive evidence of a mistake in diagnosis.

The prognosis should be very guarded, depending largely on the cause, if one be found. The heart is generally feeble, the arteries undergoing calcareous degeneration, and the changes in all the organs which follow arteria sclerosis are progressing. The kidneys are especially apt to be defective, and the tissues are loaded with waste products. The skin which should lift the burden from the kidneys is utterly unable to excrete owing to glandular atrophy, and many poisonous products are deposited in the skin as direct irritants to the peripheral nerve endings. The circulation in the blood of bile, sugar and malarial organisms is also a factor in some cases.

There are some remedies that may prove beneficial in almost any case, such as cannabis indica, given in gradually increasing doses. Belladonna and gelseminum can be used in the same way as can valerian and the bromides. Certain cases are much benefited by the use, hypodermatically, of Pilocarpine, gr. $\frac{1}{16}$, and the alkaline diuretics are also very useful. For the dyspepsia and constipation nothing is more generally useful than equal parts of tr. nux vomica and ext. cascara in sufficient doses. Diet should be regulated, avoiding the use of tea and coffee and alcoholics, and restricting the use of meats. Carbolic acid is one of the best antipruritics. Bronson's artificial oil being especially valuable.

R	Liq. Potass.....	3 ii
	Ac. Carbol.....	3 iv
	Ol. Bergamot....qt.	x
	Ol. Tini.....ad.....	3 ii
M.	Sig.—Ext. use.	

Especially grateful at times are acid or alkaline baths, as are aqueous applications of acetanilid, 1 drachm to 1 ounce, which often gives relief for hours. Menthol and cocaine are much praised as antipruritics, but are of little value here.

Pyrexia.

The Cincinnati-Lancet-Clinic of July 4th, 1896 contains an original article by G. F. Lower, M. D., Ph. G., Port Washington, Ohio, entitled *Pyrexia* in which he claims to prove the eminent practicability of this subject in as much as there is no other phenomenon of the diseases of the human body so generally present as Pyrexia. That its clinical import is too often overlooked even by the most learned and skillful physicians.

From the time of Hipocrates 460 B. C. to the time of DeHaen 1754 A. D. physicians were compelled to practice medicine without the clinical thermometer, and one chief reason why diseases then were so grievously fatal was because the enfortunate sick were allowed, through ignorance, to be destroyed by their own flames, generated in their own bodies, at the expense of their own vital forces.

The importance of its recognition by the physician, and its suppression, is emphasized by the fact that 80 per cent. of the cases of convulsions in children and about 40 per cent. of deaths from acute diseases in the adult are caused either directly or indirectly by a high temperature of the body.

Pyrexia is always caused either by some local or general irritation. It is always an index to some morbid process somewhere in the economy, never primary but always symptomatic. When excessively high, 106 to 108, it is an infallible indication that there is some serious and dangerous disease antecedent.

Upon finding, at the bedside, a considerable fever, say from 102 to 108 we should not wait, in the hope that it will subside, for upon bold, prompt and heroic treatment many a life depends and the silent tombs could tell that 99 per cent. more lives perish in or by their own animal heat than from collapse following its reduction.

A temperature of 102 is not dangerous, immediately, but is sufficient to pervert—either augment or diminish—the functions of the various organs and thereby favor tissue change, and to rob our patient of normal sleep.

Its reduction is not only always justifiable, but imperative, regardless of the etiology or age in life, either before or after we have made a positive diagnosis.

Nearly all diseases are more prevalent,

pernicious and destructive to life in the torrid zone than in the temperate and frigid zones and this alone is overwhelming evidence that the condition most favorable for the creation and propagation of microbes and the accumulation of *materies morbi* is a high temperature; therefore we can but conclude that the longer we subject our patient to a slow process of internal roasting, the more imminent will be his peril and the more favorable the case will be for the mortician the clergyman and the marble-cutter. On the other hand, by the most vigilant circumspection in keeping the temperature unfavorable for the habitation of bacteria we decidedly modify and retard if not arrest the morbid process.

To regulate the production of heat within the body is difficult and often impossible, while to regulate the loss is easy and positive. If we want to reduce the temperature of a room we open the doors and the windows, and so, in pyrexia, since here we have either an excessive production of heat within the body or a diminished loss or both, and since about 85 per cent. of animal heat is lost by way of the skin the best method to reduce a fever is the common sense method of opening the pores of the skin by diaphoresis and hydrotherapy. The substance of the paper is summed up in the following five points:

1. Pyrexia is always a symptom only.
2. It is an inexplicable chemical and nutritive process.
3. It is never pathognomonic.
4. Its reduction is always indicated.
5. The best treatment is diaphoresis and hydrotherapy.

Summer Camp Hygiene.

Dr. A. L. Benedict, of Buffalo, contributes to the American Medico-Surgical Bulletin of July 25, an article with this title, describing Prof. Arey's Natural Science Camp on Canandaigua Lake. In order to control a large number of boys, a semi-military disciplin has been established which is enjoyed by the pupils. There are seven general assemblies, by bugle call, daily, beside two swimming calls which few of the boys miss. Instruction is entirely by field-work, so that every boy is under almost constant supervision.

At the opening of camp, early in July, a physical examination is made in order to detect hernia, heart disease, lung trouble, &c., so that special hygienic treatment may be applied. Inquiry is also made regarding possible infection,

The food supplies are carefully inspected and water, formerly drawn from the lake, through 700 feet of pipe, is now taken from a spring remote from buildings. No attempt is made to imitate the supposed scientific dietary of sanitariums but habits of eating are corrected as necessary. A candy store is opened after each meal, purchases being limited.

This store was instituted to prevent the boys from buying inferior candy, where they could not be limited as to quantity. Dr. Benedict has elsewhere expressed his belief that good candy is a wholesome article of food, if taken as dessert.

The time allowed for swimming should be based upon individual endurance, some should only duck under and immediately dry themselves, others may remain in the water even half an hour, twice daily. A deduction is made against the Brandt treatment of typhoid. Taking cold is almost unknown, in spite of occasional wettings and carelessness as to dress. The opinion is expressed that "taking cold" is usually due to the irritation of bacteria or smoke or city dust, composed mainly of particles of manure and coal. Although physical measurements usually show an increase in weight, chest expansion, &c. Dr. Benedict does not lay much stress on these apparent improvements as they are to be expected in growing boys. Light gymnastics are used and competitive events are restricted to short distances. The main benefits of camp life are the self-reliance and the general improvement of nervous and physical tone.

Meeting of The American Electro-Therapeutic Association.

The Sixth Annual Meeting of The American Electro-Therapeutic Association will be held Tuesday and Wednesday, September 29th and 30th, and Thursday, October 1st, 1896, in Allston Hall, The Studio Building, on Clarendon Street, near St. James Avenue, Boston, Mass.

The Brunswick Hotel, corner Boylston and Clarendon streets, will be the

Headquarters of the Association during the Meeting. Terms, reduced to four dollars per day, for Fellows and their friends. The Copley Square Hotel, corner Exeter Street and Huntington Avenue, terms reduced to three dollars per day, is also located in close proximity. For rooms, etc., apply either to the proprietors, or to Dr. W. H. White, No. 222 Marlborough street, Boston, Mass., who, as the Vice-Chairman of The Committee of Arrangements, will reserve rooms.

Prof. A. E. Dolbear, Tufts' College, Mass., is the Chairman of The Committee of Arrangements.

Dr. W. H. White, 222 Marlborough Street, Boston, Mass., is the Vice-Chairman of The Committee of Arrangements.

Dr. Frederick H. Morse, Melrose, Mass., is the Chairman of The Committee of Exhibition.

The next annual meeting promises to be a greater success than any former one. Great interest is shown in all quarters; a large attendance is promised. Many candidates of national reputation are proposed for membership, so that the amendment to increase the limit of members becomes a necessity. The best talent has already announced papers, a larger number than ever before, at this early date; material almost sufficient to make a programme for the session of unusual interest. There will be two discussions of importance in *electro-therapeutics*, interesting reports of all standing committees, several scientific lectures on the first evening, with demonstrations and stereoscopic views (including the Roentgen X Rays, and electric principles in the treatment of diseases), given by eminent talent.

The Committee of Arrangements has surprises in store for the Social Element in receptions and excursions.

The exhibition promises to be a good feature, and of more than usual interest.

The fifth annual volume of The Transactions of The American Electro-Therapeutic Association is now on press, and will be ready for delivery about the end of July, 1896; illustrated, cloth bound, gilt lettering, octavo, about three hundred pages.

EMIL HEUEL, M. D.,
Secretary.

A Brief History of Medicine.

Under the heading of "A Brief History of Medicine," Dr. P. C. Sutphire, of Mun-

fordville, Ky., has been contributing a series of highly interesting articles to the Louisville Medical Monthly—the third of the series, treating of “medicine among the Romans,” appearing in the July number. It is not improbable that another paper or so may yet follow, making mention of medicine, more especially during the “Arabic period,” when, presumably, the articles will close.

The articles trace medicine back to its earliest supposed sources in the pre-historic ages of the world; speak of its more early discovery, with the more early advent of the physician, and, next, give a highly instructive historical account of the Art, as seen among the ancient Egyptians, Jews, Greeks and Romans.

In these papers Dr. S. exhibits a familiarity with his subject that could only have been acquired after much and extended reading, and elaborate research; whilst in his condensation of the very large amount of matter that he had to draw from—the condensation of the many hundred pages into the few only—the task could not have been less difficult, than he has made it so very successful.

The subject is highly interesting and instructive, and as its study is much neglected by us, as a profession, so such articles are always welcome and timely, and ever merit our highest notice and consideration.

Codliver Oil in Summer Diarrhœa and Cholera Infantum.

Joseph L. Bauer, M. D., St. Louis, Mo., late Professor of Genito-Urinary Surgery, Materia Medica and Therapeutics, says: It is not my purpose to place Codliver Oil in the all-saving armory of medicinal aids, nor is it necessary to exaggerate its properties in order to emphasize its utility in many cases of the disease I am considering. I am aware of the fact, unfortunate though it be, that we must look for its panegyric to the authorities of a past decade. Like many valuable adjuncts, it has to a certain extent been misplaced by the novelties of an experimental age; yet it has virtue of superior quality which leads to prompt response if applied at the proper time, in proper manner, and effective quantity. In presenting a good word for an old remedy, I call to mind the case of one of my children that proved extremely susceptible to the influences of

inclement weather of her second summer. Diarrhœa and vomiting had reduced her to a skeleton, despite the most painstaking nursing, hygiene and artificial feeding of varied character; indeed, almost the entire category of remedies had been exhausted, when I requested the aid of a neighboring physician. I was asked if I had tried small doses of Codliver Oil often repeated, or if I had ever massaged children with Codliver O-I; I responded that I had a deep-rooted prejudice against the vile stuff, but would waive the feeling if he advised the treatment. For a period of three weeks this treatment was pursued zealously, without the intervention of any other remedy, and the most successful result achieved. Since this time I have made frequent use of the remedy in cases characterized by rapid and sustained debility, and have found that its advantages are signal and permanent. The objection to Codliver Oil lies in its taste and general defectiveness of the average emulsion of the drug. Through the energies, however, of Mr. Hagee of this city, the profession has secured a cordial of the oil, containing all the essential ingredients, less the offensive one (the grease), and thus giving a therapeutic aid in convenient and palatable form, against which no possible objection can be raised. The usual dose to an infant child is half teaspoonful every two or three hours.

Modern Treatment of Eclampsia.

“Modern Treatment of Eclampsia” is the title of a paper read before the New York Academy of Medicine, May 29, '96, by Dr. T. Marx, one of the Surgeons to the New York Maternity Hospitals. In it the doctor advocates measures which are both timely and radical. His indications for interference he bases not upon the presence of albumen, œdema, or constitutional symptoms, but upon the amount of urea excreted in 24 hours. The etiological factors he discusses somewhat at length, but comes to the conclusion that the pathogenesis of eclampsia is surrounded by a mist of doubt. He divides the toxæmia of pregnancy into I. That complicating heart disease. II. Acute pregnancy nephritis. III. Acute exacerbation of a chronic nephritis. IV. Acute toxæmia in which neither albumen nor casts appear, which he termed “Urinæmia.”

In cases under heading I. he advises constant administration of heart tonics, and where these fail, or in any case where albumen and casts appear, induction of premature labor, preferably in one sinking under chloroform, the cardiac affection being no contra-indication to giving chloroform.

In cases under heading II. we have a full and complete therapeutic measure—one not nihilistic—rest, milk, hot sweating, heart tonics in full doses (those that irritate kidneys, like digitalis, iron, &c., contraindicated), caffeine, nitroglycerine, spartine, are among those advocated. We fully expected to see the author advocate *veratrum viridi*, but on the contrary he condemns this new fashioned, resurrected drug, before labor. He states that where there is an indication for its use, there is also an indication for emptying the uterus. It is purely a symptomatic measure which does not influence the seizures, for on numerous occasions an eclamptic shock occurred when the pulse was 60 and feeble. Further, he condemns bleeding, and when the indication is present to bleed empty the uterus at once and allow the uterus to bleed, the so-called uterine venesection, until the pulse is soft and slow. This appeals to us as an ideal and scientific procedure.

Pilocarpine he mentions only to condemn. He advises early operative interference, and as stated above he places his indication when, in spite of vigorous scientific treatment, the amount of urea excretion remains stationary or progressively diminishes.

After labor large doses of morphine, where the kidneys are active, otherwise codena in from 1 to 3 grs. to control convulsions, further asserted by the inhalation of chloroform.

Under heading III. In this large class of cases, he admits of brilliant results, in the continuous administration of from $\frac{1}{100}$ to $\frac{3}{100}$ gr. of nitroglycerine from the first months of pregnancy. He has succeeded in carrying a number of women to term, without any bad symptoms.

With this treatment he claims it is not necessary for a mild diet, since he advises a liberal diet throughout pregnancy.

In class IV cases called *Urinamia*, the diagnosis is of great importance. The diagnosis can only be made when symptoms pointing to a toxæmia be present, a diminished urea excretion is found.

The only treatment advised is prompt emptying of uterus, and then treatment as above.

The cases are all very malignant and fatal.

Taking the paper as a whole, it is very exhaustive, and is to be recommended for careful reading to all modern progressive obstetricians. It would at first sight appear very radical, but in this radicalism lies extreme conservatism, since the results for both mother and baby are much above the usual.

Treatment of Certain Pus Tubes by Drainage Through the Vagina.

In the Maryland Medical Journal for July 25th, is an article by Dr. J. Mason Hundley, of Baltimore, upon the above subject.

He gives detailed histories of four cases of pus tubes treated by drainage through the vagina. He has operated on eight such cases the past eighteen months, all of which recovered; the four cases related in the article he has been enabled to follow up closely, and to know the ultimate results of the operation, and the condition of the patients after leaving the hospital. They have all expressed themselves as being well and able to resume their accustomed duties. One is four months pregnant.

The cases treated by him have all been desperate ones—the patients have been intensely septic, having albumen and tube casts in their urine, some have had œdema of lower extremities—all of them presented a typical fixture of profound septic infection.

Dr. Hundley says "two facts in the treatment of pus tubes determines the mode of operation, if the patient has been a long time septic, with a bad pulse—temperature is not so important as the pulse—and if the mass is *deeply* situated in Douglas' pouch, making it possible to puncture and open up freely the posterior fornix and evacuate the pus, the vaginal route is adopted. If the tube is not so situated that it can with safety be opened by the vaginal route, then the abdominal route is selected.

Even where these pus tubes are treated by free incision through the posterior fornix, the abdomen is often opened that the operator may by sight and sense of touch make sure that no damage has been

done to surrounding organs, and that all pockets of pus have been opened into. If every accumulation of pus is opened up, and the tube made a common cavity, the operation is very generally successful, and in cases that would most assuredly have died had the ideal operation of enucleation of the sac been attempted.

Dr. Hundley states "that later on it may become necessary to do a hysterio-salpingo-oöphorectomy, the chances of recovery from which will be greatly enhanced by the improved condition of the patient and freedom from sepsis, which improved condition has been brought about by the vaginal operation.

Duty of School Boards of Health.

An attractive and useful paper was recently read before the Illinois State Board of Health Auxillary Sanitary Association, upon the duty of Local Boards of Health as instructors of the public, by Dr. Arthur R. Reynolds, President of the State Board of Charities of Illinois.

In assuming the affirmative Dr. Reynolds says: "There is no question upon which the public is so eager for knowledge as the one that affects their health or gives them promise of lengthened days," and that "instruction should be in the direction of the prevention of disease rather than its treatment."

The doctor inveigles against the "medicine-taking habit," and asserts that the habit costs the public millions annually and is a fruitful source of digestive ailments, and thinks the people should know that a kindly Providence has a hand in the curing of ills, and that suggestion plays an important part, while the nostrum, that gets the credit, may have been a hindrance rather than a help. Attention is called to the bad example set by legally qualified physicians when they prescribe remedies of questionable virtue as placebos, or to give the semblance of value received for the fee that is charged, and the custom of dosing patients as to quantity and frequency is referred to by the extremes. "Sulphur and molasses given annually in the spring," and "candied crumbs given every fifteen minutes."

The doctor urges local boards to teach the public that there are but few medicines of positive potency in disease, but a very

large number of drugs and compounds capable of serious harm.

Timely attention is directed to the danger of pollution of all sources of water supply, and the imperfections of ordinary methods of purifications. He says: "Filtration does not remove all the poisons, and boiling only destroys the living poisons, while neither remove the lime or any of the salts." Claim is made with directness and novelty that the only absolutely pure water is that purified by nature's process—"the distillation by solar heat and given to man from the clouds." * * * * "From this fact so plainly taught by nature, we learn the lesson of how best to remove all impurities. Distillation is nature's process of purification and like all of nature's ways it is perfect. All other methods are make shifts and imperfect. It might be well to instruct the public how distillation can be readily and cheaply done. As it furnishes a fruitful field for the genius that will devise a small distilling apparatus for the use of every family."

The generous use of pure water is urged—"both within and without the body."

Sunlight is referred to as "nature's great disinfectant and germ destroyer"—every living room should have an outlook both to the earth and to the sky. Crowding in dark and illy ventilated city tenements is characterized as a crime against helpless little children. The author condemns the erection of high buildings to cast their shadow and gloom over adjoining property, while there is ample room to spread out upon the surface.

Cleanliness is advised as the most convenient weapon to fight the ubiquitous microbe with, and the necessity of the selection of boards of health, because of the fitness of each member for the position is urged, and "the selection upon any other pretext wholly inexcusable."

Letter From The Ammonol Chemical Company.

NEW YORK, May 21, 1896.

TO EDITOR OF THE PUBLIC HEALTH JOURNAL:—

Our attention has been directed to an article by N. G. Excles, M. D., which was published in a New York Drug Journal. The evident intent of the writer was to criticise the manufacturers of

Ammonol; we are to that extent interested. The casual reader might infer from Dr. Excles' article that we have misrepresented the composition of Ammonol; in fact we were at first inclined to think that the learned Doctor accused us of quackery or deceit. A further reading of the Doctor's effusion puts the matter in a different light. With the exception of a slight typographical error in which the word "series" was omitted before the chemical formula of one of the ingredients; it is difficult to understand the occasion for the Doctor's criticism. Divested of the verbosity which covers an entire page in this New York Drug Journal we find that we are admitted to have published the formula for Ammonol as Ammoniated Phenylacetamide, and that in some of our literature it is stated "the Ammonia is a combination with some basic salt into which it has entered during the process of manufacture." The Doctor, on the other hand, after floundering around in a mire of chemical experiments, finally concludes that Ammonol is Phenylacetamide and Ammonia. That he thinks the basic salts are carbonate or bi-carbonate, and that they are Ammonium and Sodium; this is all right. We have never denied it, in fact we have so published it, and have taken great pains to advise the medical profession what the composition of Ammonol is. It is not to be supposed that we can bottle Ammonia vapor and sell it with Phenylacetamide. No person with any common sense would expect us to do so. In order to exhibit the stimulant Ammonia in connection with Phenylacetamide, it is of course necessary to use some simple basic salt to retain the vaporous Ammonia. It is not, in our opinion, necessary in stating the formula for a preparation, that we should give the exact working formula. We understand the definition of a secret or patent medicine to be one in which the composition is kept secret. By composition we mean, the medicinal agents employed. No manufacturer is expected to go into the details of its preparation, or to publish such information as will induce ignorant or incompetent druggists to attempt the preparation extemporaneously of that which requires both skill and expensive machinery to produce. The inventor of a valuable drug deserves that protection which his enterprise and skill entitles him to.

"Imitating a Specialty."

The "National Druggist" has for years declared that the so-called "analyses" of organic mixtures and compounds, such as constitute the majority of proprietary remedies, are frauds of the first water, and that the formulæ derived, or claimed to have been derived, from such analyses were the veriest of guess-work, tended merely to produce a substance which should imitate the general physical characteristics (appearance, taste, smell) of the genuine article sufficiently closely to deceive the unwary customer.

To illustrate the utter unreliability of this class of formulæ, we not long since took from the columns of an eastern contemporary two recipes for one and the same preparation, a widely advertised and popular proprietary remedy, and contrasted them side by side, showing the enormous differences not only in the amount of each ingredient used, but in the number and character of the ingredients (one having 5 and the other 13 items, of which only 3 were in both formulæ). It was plain at a glance that if one of the so-called formulæ was correct, the other was enormously wrong.

The preparation alluded to is but one of hundreds that have suffered at the hands of the unscrupulous and conscienceless scoundrels who pose as "chemists" and "experts," but whose occupation differs only in degree from that of Kidd or "Robin the Rover." Indeed, of the two classes, we believe the latter to be the more respectable. The object of both was plunder, but while the latter hoisted the black flag to warn the whole world that their approach meant danger and that contact was death, the former fly the flag of philanthropy and wear the garb of science; but while one took the lives of a comparative few, openly, in battle, the other trifles with the life and health of myriads in secret.

Is it possible, we are asked, that chemistry with its vaunted triumphs is unable to separate the constituents of such mixtures or compounds, and tell us exactly what they are? Let us show you what you ask: Chemistry can tell us exactly how much carbon, oxygen, hydrogen, nitrogen, etc., is contained in any given substance. It can separate the potassium and sodium salts, the sulphur, the iron, and the other elementary sub-

stances. But what chemistry can not do is to tell us to what plants these various substances belonged. It is true, that with infinite pain; a man thoroughly skilled in the art may separate out the alkaloids, and may say that very probably such and such vegetable substances were present in the compound. Further than this, unless in very exceptional cases, no chemist of to-day who values his reputation would venture to go.—*National Druggist*.

Peroxide of Hydrogen.

Dr. Warren Brown, of Tacoma, Washington, in a paper on "Peroxide of Hydrogen," read before the Washington State Medical Society, and published in the *Medical Sentinel*, of Portland, Ore., Feb. 1896, after alluding to its method of manufacture, speaks of it therapeutically as follows:

Gonorrhœa may often be absorbed by using a full strength hydrogen dioxide injection immediately on the very first appearance of discharge. The injection should be used four to six times in twenty-four hours and retained for five minutes.

Cystitis, where pus is voided with the urine, often yields rapidly to injections of a solution containing two ounces to the pint.

Otitis media is treated by hydrogen dioxide solutions in various strengths from 6 per cent, upward.

Eye diseases, where there is a purulent external inflammation, are constantly being benefited by this agent. The Wills Eye Hospital, Philadelphia, uses a 50 per cent. strength of the so-called 15 volume solution. Blepharitis marginalis is quickly cured by touching the edges of the lids once or twice daily with a strong solution, care being taken to avoid getting it into the eye.

Ulcers of all kinds improve rapidly under its use, and for treating and cleansing venereal sores, as chancroids, etc., it is of great service.

Empyema, especially where there is from the first a stinking sanious exudation following incision, is very satisfactorily treated by washing out the cavity with a solution from one half to full strength.

In appendicitis, the abscess cavity is cleansed with this solution by many operators, in preference to any other antiseptic.

Robert T. Morris, of New York, has laid special stress on the value of the peroxide in these cases,

In follicular tonsillitis, the use of a spray, diluted just enough to prevent the smarting sensation, and alternating with this, one of the alkaline antiseptic sprays, or gargles, is a very satisfactory procedure.

Diphtheria and all naso-pharyngeal inflammations where there is a pseudo-membranous and septic condition, have been treated very widely by means of this agent. I like the plan of Jennings in Detroit, who uses an irrigation of an aqueous solution of one-eighth each of hydrogen dioxide and listerine. He throws the solution into the pharynx with an all-soft rubber syringe every one, two or three hours. The plan is an admirable one for treating children, and the combination is pleasant and effective.

Atrophic rhinitis is benefited remarkably by the use of a 40 per cent. spray. It should be used a few minutes before the employment of the usual alkaline, stimulating spray, and the powder insufflations. In this way the scabs are loosened, muco-purulent secretions are dissolved, and a stinking breath is converted into one that is pure and sweet.

In acute cases of eczema of the leg, we find this agent of the utmost value. The tissues are inflamed, hot, swollen oozing, the itching is almost unendurable, the odor is offensive. To secure the best results the limb is elevated, and a diluted solution of the peroxide is applied frequently, with cheese cloth, gauze or an atomizer. In two or three days a marked change for the better will be apparent, the pruritus is allayed, the purulent exudation is checked, and all inflammatory symptoms are subsiding. At this stage we begin the use of a soothing ointment, such as the boracic acid or zinc oxide, using lime liniment to wash the parts instead of water. Under this treatment, combined with rest, we will see our patient rapidly cured.

Eczema of the anus will rapidly improve if the fissures are touched twice a day with this solution, then dried gently with cotton, and a glycerite of lead application made. In nearly every form of acute eczema in the first and second stages the peroxide will give us the keenest satisfaction. The regular solution is diluted with two or more parts of

water. Hydrogen peroxide is an excellent anti-pruritic and for this purpose it is widely used.

The hæmostatic value of this drug, as pointed out by Dr. Emerson Brewer, of New York, I can endorse. In operations on the nose and throat I have upon two occasions been enabled to check a persistent hæmorrhage, when Monsel's solution and plugging had failed. At present I am in the habit of applying the full strength hydrogen Peroxide after every operation on these parts. It is of special value after sawing out a deviated septum.

For flushing out a mammary abscess cavity this agent is invaluable.

Applied to the cervix uteri, adherent mucus is removed and our medications can be applied.

When it is inadvisable or impossible to make a complete opening of a fissure or abscess, irrigation with the peroxide will be found superior to all other antiseptics.

We have in peroxide of hydrogen a prompt, safe and efficient germicide. By its oxidizing power it rapidly decomposes pus, diphtheritic membranes, and other morbid putrifying material. It is a thorough deodorizer, and as a cleansing agent for foul wounds, abscesses, etc., it has no equal.

Of the different preparations of peroxide Marchand's has been most uniformly satisfactory.

Since writing the foregoing paper my attention has been called to hydrozone, a stronger solution of peroxide of hydrogen, which for some months I have been using with much satisfaction.

Rupture of the Pancreas.

Dr. B. E. Hadra of San Antonio, Texas, has an interesting paper in the Medical Record of July 18th, on this subject. After reading it we believe in what he says, namely, that this accident is only erroneously considered a rare one, and deserved the full attention of the general practitioner. He gives the history of a case that happened in the practice of Dr. Watts of San Antonio, where a boy was struck by the handle of a bicycle against his stomach. He fainted, vomited, but soon recuperated and showed no symptoms of gravity for several weeks, when the size of the abdomen attracted the attention of his mother. Dr. W. then found

a protruding epigastrium with dullness, extending into the thorax on either side, whilst the tympanitic stomach and about 2 inches below it, the transverse colon stood out in high relief. The patient felt quite weak, and the mother reported a curiously perverted appetite. Puncture in the middle line between stomach and colon showed the presence of a limpid fluid looking like the white of an egg. The diagnosis of pancreatic leakage was made, the place of puncture incised, the lesser cavity of the peritoneum drained, and the boy after some further incidents and accidents was perfectly restored to health.

The author shows how such injuries which are ruptures of the pancreas together with its (anterior) peritoneal cover must lead to a leakage of the pancreatic juice into the lesser cavity of the peritoneum, the omental bursa, where it will be come pent up. It is evident that such conditions widely differ from real cysts of the pancreas, though the latter are often caused by traumatism. A real cyst is extraperitoneal and only lifts up the omental bursa, whilst in the other instance the fluid is situated intraperitoneally. A real cyst is a more or less movable and well defined tumor, whilst in the other instance and indistinct area of dull percussion sound, reacting up into the hypochondriac regions is found, on which stomach and transverse colon form tympanitic islands. The fluid will on exploratory puncture be found either perfectly limpid, or mixed with blood. Even pure blood may be found, if larger vessels are rent.

The author believes that ruptures of the pancreas are frequent accidents, and that in the great majority of cases the slight rent will heal without causing any visible symptoms. From the fainting and vomiting, though just after a blow or fall on the abdomen, and perhaps from perverted appetite the diagnosis may be made with great probability. If the rent does not close and the discharge of the juice into the lesser peritoneal cavity persists, then surgical interference will be demanded, drainage is from all experience at our disposal a safe treatment. Incision is best made in the linea alba between stomach and transverse colon, the omentum thus has to be stitched to the parietal peritoneum to the extent of a square inch, and in incision admitting a

medium sized drain tube made middle of this square.

From what we can judge, Dr. H's ideas seem to be perfectly sound and of high practical importance. An injury which up to this time had been held somewhat of a curiosity, is brought to our mind as a frequent occurrence with which we ought to count in every abdominal traumatism.

Meniere's Disease.

An article of more than ordinary interest has just been published in a recent issue of the New York Medical Record entitled Meniere's Disease, Apoplectic Form. The author, Dr. T. A. Kemfick of Newport, R. I. adds additional evidence to the truth of Meniere's theory in locating the lesion from which the three marked and exclusive symptoms results.

We take pleasure in presenting to our readers the following abstract of a report of this rare but interesting disease.

In 1861 Meniere demonstrated post mortem that the lesion in these cases was a plastic exudation into the mucous membrane and labyrinth of the internal ear.

The presence of this exudation interfering with the function of the cilia in the conduction of sound waves thus producing deafness, the suspension of the function of the auditory nerve through its connection with the cerebellum in controlling equilibrium accounting for the giddiness, and the vomiting provoked by the close relationship as Trousseau has noted between the stomach and these same cilia or auditory hairs.

The case reported was that of an architect when after many years of close application to his profession was taken suddenly at night, all three symptoms being present, otherwise the man being in splendid physical condition.

Microscopical examination of the urine gave negative results.

Ipecac in small doses finally controlled the vomiting, but the dizziness and deafness persisted, the former being so marked that the slightest attempt to rise gave him the sensation as if he and the bed were rapidly revolving. At the end of six weeks these symptoms had improved so much that he managed with a tottering gait and by the assistance of a friend to

daily reach his office which he persisted in doing until he had fully recovered.

Large doses of bromide and iodide of potash and quinine were given with no special benefit. Galvanism was applied after the acute symptoms had disappeared and really seemed to assist in the absorption, though the author is of the opinion the disease ran an independent course toward recovery.

Unique, Serviceable,

Our esteemed contemporary, The Nursing World, sometime since offered a series of prizes for the best form of bedside record for use in taking notes in cases of sickness.

Of course there were many competitors and as many designs submitted and though prizes were distributed, none of the examples were considered as perfect in themselves alone, so Dr. J. Edmund Brown, the editor, conceived and carried out the idea of selecting from all the designs submitted, the best points of each, making up a model bedside record. The result is the 64 page book before us "The Nursing World Bedside Record for the Use of Physicians and Trained Nurses." The book is a fine piece of typographical art, printed in two colors with a day and night record to last through a six weeks case of illness. This record contains date, day of disease, nurse's name and with ruled columns for time, pulse, respiration, temperature, two lines for nourishment and medicine, and two lines for each entry for notes on action of heart, condition of mind, pain, chill, sweating, vomiting, condition of wound, bathing, etc., four spaces for *defecation*, time and character, *urine*, quantity, color, reaction, specific gravity, albumen, sugar, and sediment. At the left hand corner is the dial of a clock, the outside rings of which are printed in blue and the inside red. This is for recording the hours of sleep, the space between the outer blue lines being shaded in with a lead pencil or pen for recording sleep during the day time and that between the two inner red lines for recording that at night.

On the second page is a blank for recording the necessary data with reference to the case itself, while page three shows the sample of night record filled out as a guide to its use. Page four is devoted to previous history or date of entry, while

the following 42 pages are devoted to the record above alluded to. Then comes three pages of temperature charts, followed by six pages for record of prescriptions, etc. Then we have two devoted to miscellaneous memoranda and two to subsequent history of the case.

This is all printed very nearly on writing paper, bound with a stout, fine grade manilla cover, with the Geneva red cross printed in color in the center. The whole is encased in a substantial manilla envelope making the most complete as well as the most elaborate and serviceable nursing record we have ever seen. The surprise, however, comes in here. It is published by the Imperial Granum Co., of New Haven, Conn., and may be received free from them upon application.—*The Prescription*.

Rare Skin Affections.

In a paper read before the Manhattan Medical and Surgical Society of New York, Dr. Fred. J. Leviser has put together and commented on some common and a few rare skin affections occurring in connection with gastro-intestinal disturbances. He has selected very appropriately: eczema infantile, acne rosacea, urticaria, Osler's exudative erythema, angioneurotic oedema, Pellagra and pruritus.

Clinical experience has shown that there is a connection between gastro-intestinal disturbances and eczema infantile, and that external treatment alone is in the majority of cases not able to effect a cure. The writer has often observed the co-existence of fermentative gastritis and acne rosacea. In these cases, as a rule, the teeth were decayed and defective, so as to render proper mastication impossible.

In regard to urticaria, a clinical distinction can be made between cases of gastric and cases of intestinal origin. The absence of all gastro-intestinal disturbances in urticaria is a valuable negative symptom, which may mean the presence and bursting of a hydatid cyst of an internal organ. Pollagra, the endemic disease so prevalent in Northern Italy and developing under the influence of a diet of diseased maize, is of interest because it has been suggested that possibly other grains, such as oats, may produce a

similar affection. In pruritus indigestion and constipation are often present, but, according to the writer, do not seem to be ætiological factors. Autointoxication i. e., the absorption of products formed in the intestine by the decomposition of the albumin under the influence of bacteria is claimed by many authors to be the cause of erythema, urticaria, herpes and pemphigus.

The author concludes his interesting article with the remark that gastro-intestinal disturbances, although not being the direct cause, frequently exacerbate attacks of eczema, furunculosis, acne and psoriasis.

Loeffler's Bacillus and Diphtheria.

Hennig of Königsberg at the recent congress at Wiesbaden, stated that he had made exact clinical and bacteriological examination of 63 cases in relation to Loeffler's bacillus, which he had found present in 35 cases; in only some of these was the disease clinically true diphtheria; in others it was follicular sore throat or tonsillitis, and one was a case of pharyngitis aphthosa Heryng. Moreover the bacillus was not present in 7 cases that subsequently exhibited typical paralyses, an Hennig therefore concludes that this microbe cannot be invariably the determining agent in Bretoneau's diphtheria, and that no treatment based on the hypothesis that it is so can be accepted as specific. He proceeded to point out that the results of serumtherapy are by no means as brilliant as they seem; that other methods have given better results before the antitoxin had come into fashion, many writers having saved all but 3 or 4 per cent. of their cases, including gangrenous and scarlatina cases. Finally he recommended the treatment he had himself consistently persevered in adopting in 1,927 cases, with a mortality of only 3.06 per cent., namely, lime water, the permanent application of an ice cravat, etc.

The preparations of "Pepsin," made by Robinson-Pettet Co., are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page 165.)

Military Medicine and Surgery.

At the last meeting of the Ohio State Medical Society, Captain James E. Pilcher of the Medical Department of the Army, (Columbus Medical Journal, July 21, '96,) read, by invitation, a paper upon Some Features of Military Medicine and Surgery at the Present Day.

After calling attention to the incorrectness of the term "military surgeon," he showed that even in war a majority of the cases treated by military medical officers were medical in their character, and demonstrated that the function of the army medical officer was primarily hygienic, and then medical and surgical. With regard to actual battlefield surgery, Dr. Pilcher observed that the advances in ordnance and explosives warn us that the battles of the future will be shorter, perhaps, but incomparably more destructive than those of the past. The labor of caring for the injured in conflicts in which these sanguinary implements are engaged will be enormous beyond precedent. The number of cases in which operative action will be required, and the brief time available for this purpose will impose upon the surgeon a necessity for dexterity and rapidity of work never before known. While anæsthesia has done away with the demand for "lightning operators" in civil life, the need for them in military surgery is greater than ever. With this prodigious casualty rate it will be absolutely impossible to remove the wounded from the field during the progress of an engagement, nor will it be possible for medical officers to promptly treat more than a few of the cases. First aid to himself must be taught every soldier.

At the close of a battle—it will be impossible to do it sooner—the wounded may be removed from the field by the soldiers of the hospital corps. These men are taught to do this with extraordinary deftness, and are also instructed in the treatment of the most frequent emergencies, so that they may always be able to step into the breach in case of the absence or death of a medical officer. The author then described in detail some of the new features of military medical work, and closed with the assurance that in the event of our country's involvement in another war an even greater degree of efficiency will be present in the medical department, the sick will be more promptly

succored, the disabled more quickly borne to a place of relief, and a fatal result averted from a far greater number of the unavoidable victims of war.

Drainage in Puerperal Infection.

In an article published in the New England Medical Monthly, August, 1896, on Drainage in Puerperal Infection, Dr. R. R. Kime, of Atlanta, Ga., advocates drainage as the most essential factor in cases of septic infection.

Drainage from uterine cavity by use of a drainage tube, and from alimentary cavity by use of salines.

He condemns the use of the curette and tampon in cases of septic infection after labor as well as opiates and coal tar derivatives.

The curette opens up new avenues for absorption, the tampons obstruct drainage, the opiates check elimination, retards assimilation of food, and the coal tar derivatives depress the vital powers of patient without removing the cause and obscures symptoms..

With uterus properly cleaned and drained, bowels moved by use of salines, there will be no need for coal tar derivatives and opiates, as the pain and temperature will be mitigated or controlled by this process of elimination, thus removing the cause.

Drainage from uterus is best secured by use of as large sized soft rubber tube as cervix will admit—with openings made in uterine and vaginal ends with a short t or cross tube slipped over vaginal portion to hold tube in position.

The tube is removed, cleansed and uterus irrigated once or twice in 24 hours. Patient is allowed to turn from side to side in bed to favor drainage, especially where uterus is retroverted.

He claims that the lochia after labor is a natural discharge, and nature's process of elimination of effete material, and should not be interfered with by tampons, but encouraged and favored by use of all means to secure free drainage and elimination.

The author also claims that this plan of treatment prevents involvement of tubes and ovaries, and tends to relieve them when involved, and when drainage and vaginal douches of hot water are kept up sufficiently long are potent factors

preventing subinvolution and other diseased conditions so liable to follow these cases.

Inherited Tendencies.

In a recent contribution to the Medical Mirror, Dr. J. H. Mallory, of Narka, Kansas, called attention to the important part which transmission plays in determining the moral direction and intellectual capabilities of the mind. Thus the parents of refined tastes and lovable disposition render it easier for their children to possess the same enviable characteristics, while those of a stormy, tempestuous temperament are likely to furnish the world with its future bullies, pugilists and other like characters.

All familiar with school work have observed the ease and facility with which children of educated parentage take to books, while children from less favored homes plod from lesson to lesson, conquering each task by main strength as it were.

The doctor looks upon the mind as the resultant product of all the minds of its progenitors. He says: "I firmly believe that my mind bears the impress of every individual mind in the long list of my progenitors, and that I will transmit these impressions to my progeny, and so continue the endless chain of cause and effect from the remotest antiquity until time shall be no more."

The mind, of course, is not equally influenced by each of its parental minds. On the contrary, we have often observed a child whose dominant trait of character seems the counterpart of some particular ancestor. In view of these evident truths we can no longer consider man the architect of his own fortunes, nor can we hold him wholly responsible for what he is or what he may do, either good or bad. The moral condition depends as much or more upon "inherited tendencies" and early training (for which he cannot be held responsible) as upon any volition of his own. No individual possessing a normal mind, with normal training, is capable of crime. The proper appreciation of the potent force of transmission must breed, within all intelligent people, a considerate sympathy for our erring brother. Society, to be sure, must protect itself from the vicious, but all punish-

ment should be on a basis of palliation or correction, and not resentment.

Recognizing, as we must, that the criminal may be as much a victim of inherited traits as otherwise, we can no longer look upon the present diabolical methods of punishment with equanimity. The scaffold and hangman's rope should, like the rock and thumb screw, be relegated to the back ground as instruments of torture which our civilization has outgrown.

Comparative Pathology.

In the Canada Medical Record for May, there is an article on Comparative Pathology by Dr. Andrew Macphail, Professor of Pathology in the University of Bishops College, Montreal. The main object is to enter a plea for the orderly study of pathology by the comparative method, along the same lines as physiology is taught.

It is held that a true and wide notion of pathology can only be obtained by working up from plant life, for plants, it is stated, have their hemorrhages from injury, and their exudations under the attacks of parasites, necroses from the impairment of circulation, ischæmia, chlorosis and gangrene from perverted nutrition. A bruised plant bleeds and sloughs, open wounds are liable to microbic infection, there are pathologic secretions under specific irritation and tumours grouped together, which probably differ widely and are only known to the student vaguely and incompletely as the source of certain astringent drugs.

Coming next to the lower animals, the writer refers to the epithelial neoplasms, and sarcomata in fishes, sarcoma in the dog, pig and horse, cartilaginous tumours in the breast, psammoma in the brain, lipoma, osteoma and fibroma, besides such diseases of plants as sclerosis, and in animals, goitre and calcareous deposits. All these facts, he says, should be gathered up and presented in a proper correlation with the facts of human pathology.

Attention is next called to the admirable work done by the United States Bureau of Animal Industry in Washington, with which the writer appears to be well acquainted.

Dr. Macphail with Dr. Bruere has been engaged for the last six months, for the Canadian government, upon an enquiry

into the causes which lead to the deterioration of lobsters after they have been packed in cans, by which a loss of half a million dollars annually is entailed upon the industry.

Tetanus.

In the Cincinnati, O., Lancet and Clinic of July 11, 1896, is published a paper by Dr. Frank C. Curry, of Milford, O., on Tetanus, traumatic and idiopathic. The object of the paper was to help conclude a controversy between a city surgeon and a country practitioner, the former having questioned the diagnosis, ridiculed the treatment of a case reported by the latter.

It was shown by the writer in this paper that it is unjust, unkind, and betrays the earmarks of self aggrandizement on the part of the specialist, at the expense of the country practitioner, to criticize treatment, question diagnosis, ridicule manner of reporting a case, when to any fair-minded physician the facts do not justify the attack.

The writer claims that tetanus is a disease not difficult to diagnose, as its symptoms are generally so well defined that a doctor is not liable to make a mistake, unless it be for a case of spinal meningitis. Even with this disease the differentiation is not difficult if the following from Bartholew is kept in mind:

"It is important to note that the muscular contractions are excited and increased by all attempts at movement, whereas irritation of the skin does not have this effect, a point of differentiation between meningitis and tetanus."

The diagnosis being correctly established, there can be no question of the treatment, if it is scientific in principle and results are good. It was clearly shown by the writer that it made no difference which of the theories by different authors on tetanus was correct. That it is a fact if the spasms are controlled the chances of the patient's living are increased.

The remedies must be given efficiently, and an impression must be made on the spasms, the effect, not the dose, must be the guide.

He reported three cases, two of traumatic, one of idiopathic tetanus, each of marked severity, all recovering. The treatment was the combined use of chloral

hydrate with potassium bromide in doses sufficient to control the spasms.

The treatment and results in the above three cases, verifying the under man in the controversy, in his treatment, allow us to rest, with the idea that recoveries speak louder than words.

The Clinical Applications of Benzsol.

By J. V. KOFRON, M. D.,
Attending Physician St. Alexis Hospital, etc.,
Cleveland, Ohio.

Some months ago my attention was called to the remedy which forms the subject of this paper, and as I was aware that it had been employed extensively in Cleveland, and by several of our most accomplished clinicians, I was sufficiently interested to submit the drug to a thorough and careful trial in my service at St. Alexis Hospital, and also in several cases in private practice.

The results which I have obtained have been of such a decidedly favorable character as to induce me to prepare this report for publication.

For the benefit of those who are not familiar with the nature and properties of Benzsol, I should state that this drug is a chemically pure benzoate of guaiacol containing approximately 54 per cent. of the latter agent. It occurs in the form of a slightly pinkish, finely granular powder which is entirely devoid of taste or odor; it is practically insoluble in any of the ordinary menstrua and is preferably administered in the form of powder, pill or capsule. Benzsol passes unchanged through the stomach and is split up into its component parts (benzoic acid and guaiacol) by the alkaline juices of the intestine.

This fact accounts for two of its principal clinical advantages:

1st. The avoidance of the unpleasant eructations which so frequently occur after the administration of pure creosote or guaiacol, and

2d. The liberation of the antiseptic guaiacol in the intestine, where its action is especially desired in the treatment of septic conditions of the intestinal tract attended with fermentation.

In the treatment of *Tubercular Affections*, the administration of Benzsol affords a most pleasant and efficient method of obtaining the constitutional

effects of creosote without the many unpleasant features of the latter drug. As it is entirely free from unpleasant taste or odor and is almost invariably retained by even a sensitive stomach, one can, by means of this remedy, push the dose much higher than when creosote itself is employed.

The conditions for which I have prescribed Benzsol with gratifying success are as follows: Incipient Pulmonary Tuberculosis, Chronic Bronchitis, Tubercular Diarrhœa, Chronic Gastric Catarrh, Intestinal Catarrh with flatulence and Typhoid Fever.

In cases of *Incipient Tubercular Phthisis* with considerable cough and expectoration, slight evening elevation of temperature, loss of appetite, furred tongue, etc., the administration of Benzsol, gr. 4, four times a day serves to relieve the cough, reduce the amount of expectoration, bring down the hectic temperature, clear the tongue and increase the appetite.

Similar results have been observed in cases of *Chronic Bronchitis*, in which severe cough, profuse expectoration and dyspeptic symptoms have been predominant features.

Very surprising to me have been the results obtained from the use of Benzsol in the treatment of cases of *Tubercular Diarrhœa*, in which the remeeties usually administered proved of but little value. In doses of four grains every four hours, it seems to have an almost specific action in checking the exhausting diarrhœa and in improving the digestion and general condition of the patient.

In a case of *Chronic Gastric Catarrh* with loss of appetite, insomnia or disturbed sleep, a feeling of distension over region of stomach and an almost continuous eructation of gas, Benzsol proved of decided benefit after the failure of other methods of treatment.

John S., age 46, occupation, sod-layer, came to me April 1st, 1896, complaining of a gradual loss of weight, sleep and appetite, and a rather obstinate constipation. His most prominent and troublesome symptom, however, was a feeling of extreme abdominal distension accompanied with an almost continual eructation of gas from the stomach, particularly after eating, which had been getting progressively worse for the last seven

or eight months. He would frequently vomit a short time after meals, the material rejected being of a greenish, frothy and sometimes slimy nature, but almost devoid of taste.

Physical examination showed a man of medium height, weight about 130 lbs., somewhat emaciated, pale and fretful. Epigastric region distended, tympanitic and painful on pressure; rests of abdomen slightly tympanitic but not painful. Heart and lungs in normal condition. Tongue evenly coated with a white thin film. Temperature normal, pulse 80. Examination of stomach contents revealed a yellowish-green, somewhat frothy, fluid without much odor and with a faintly acid reaction.

After this somewhat incomplete but clinically sufficient examination, I diagnosed chronic gastric catarrh. I ordered a strict milk diet, and prescribed as follows:

R—Salol.....gr. iii.

Pepsin.....gr. v.

Sod. Bicarb.....gr. ii.

M. et. ft. pulv. No. 1.

Sig. One powder four times a day.

This treatment was continued until April 13th when, owing to lack of improvement, I discontinued the powders and prescribed.

R—Benzsol.....gr. iii.

Pepsin.....gr. v.

Sacch. Lactis.....gr. v.

M. et. ft. pulv. No. 1.

Sig. One powder after each meal.

Also Aloin Belladonna and Strychine tablets for constipation when necessary.

From this time on, the patient rapidly improved, the distension was relieved, eructations became less and less frequent, appetite returned coincidentally with the enlargement of his dietary, until on May 18th he reported himself entirely free from all gastro-intestinal symptoms, appetite excellent and general health as good as at any time during his life. I am confident that Benzsol is responsible for this rapid and progressive improvement as Pepsin alone has never succeeded so well in my hands.

In *Intestinal Catarrh with Flatulency*, Benzsol speedily, and effectually checks undue fermentation and also affords a valuable intestinal antiseptic in cases of *Typhoid Fever*. In three cases of this latter disease in which this remedy was used exclusively, the following satisfactory results were noted. Temperature never rose above 103°; tongue quite

clean and usually moist; none of the patients exhibited tympanites or suffered from diarrhoea, and none of them suffered from a relapse.

I have been quite anxious to test the efficiency of Benzosol in the treatment of *Diabetes Mellitus* as advocated by Von Jaksch, Piatkowski, and J. Blake White, of New York City, but have not as yet had the desired opportunities.

In conclusion I wish to express my belief that we have in Benzosol a valuable substitute for creosote in pulmonary affections, a safe and efficient intestinal antiseptic for the treatment of gastrointestinal disorders attended with fermentation, and a useful remedy for the purpose of sterilizing the bowel in typhoid fever.—*American Therapist*, June, 1896.

A High Reputation Sustained.

The Medical Times and Hospital Gazette, London, May 30th, 1896, speaks so favorably of its experience with the American analgesic, antipyretic and anodyne, a preparation the medical profession has become accustomed to regard as one of the certainties of medicines, that we reprint below its words of approval, knowing them to be in accord with the consensus of opinion as expressed by the medical men in this country. "Antikamnia—under the above name, a free translation of which is 'opposed to pain'—now being introduced to the profession in the United Kingdom is an analgesic, antipyretic, and anodyne drug, which has already gained a high reputation in the United States. It is a coal-tar derivative, and belongs to the series which form the various amido compounds. It differs therapeutically, however, from most coal-tar products in producing a stimulating, instead of a depressing action on the nerve centers, especially those acting on the heart and circulatory system; hence, it may be administered, even in large doses, without fear of producing collapse and cyanosis, as occasionally occurs after the administration of antipyrin and other similar analgesic compounds. It has been very largely used in influenza, hay fever and asthma, with good results; but its most markedly beneficial effects are experienced when administered in neuralgia, rheumatism, sciatica, headache and pain due to dis-

orders of menstruation. As an antipyretic, it is recommended to be given in doses of from five to ten grains every ten minutes, until the temperature has been reduced, or until forty or fifty grains have been taken, after which the remedy should be given at intervals of greater length. To relieve pain it is recommended to begin with a five grain dose; three minutes later the same dose to be repeated, and, if the pain continues, a third dose to be given a few minutes after the second. In our practice we have not found it necessary to give the remedy at such short intervals. In the treatment of neuralgia and headaches we have had satisfactory results from giving five-grain doses at intervals of ten to twenty minutes, until three or four doses have been taken. We may add that the drug is sold in tablets (three and five grain sizes) as well as in the powdered form. The former may be swallowed whole, or crushed and dissolved in glycerine and water, or in an alcoholic menstruum. The powder is conveniently given in cachets, or dissolved in a little wine or aromatic tincture, combined with glycerine or syrup. The drug is deserving of trial, and those among our readers who have not yet tested it should write for a sample."

Scarlet Fever.

In the July number of the Lehigh Valley Medical Magazine, Dr. F. H. Erwin, of South Bethlehem, Pa., contributes an article on Scarlet Fever, in which he reports the case of an infant, four days old, whose mother had been exposed to scarlet fever on several occasions during the last months of her pregnancy, in which the child developed an abscess of the waist, and died without the characteristic eruption.

He deprecates the terms scarlatina and scarlet rash as misleading and prone to beget false security and a careless observance of quarantine regulations, which should be rigidly maintained in all these cases, and the method of using medicated ointments with which to anoint the body of the patient, the generation of medicated steam in the sick chamber, and the careful disinfection of the clothing and person of attendants will be in strong evidence in preventing the spread of the disease and the earlier convalescence of the patient.

Scarlet fever patients should be kept isolated for six or seven weeks after the skin has peeled off.

The complication of nephritis, otitis, and derangements of the nervous system should be met as they arise, and in mild cases the use of drugs is not indicated to any appreciable extent. Hydropathic measures are the best combatants of the fever and convulsions, in the former cold or tepid baths with frictions of the extremities, and for the latter hot baths will prove worthy of trial.

Duties of the Medical Profession to Public Health.

The July number of The Tri-State Medical Journal has an article read before the Northeast Missouri Medical Association by Dr. W. F. Mitchell of Lancaster, Mo., on the subject "Duties of the Medical Profession to Public Health." The writer relates the history of the neglect of the duties of physicians on the subject of public hygiene in former times; that the time was devoted to the hunting of a remedy for the cure of disease. If that failed they rested their mind that all was done that could be done, and if it was the Lord's will, the patient died.

The writer calls attention to the fact that 150,000 people die every year from the neglect of the duties of health, and there are a large number of physicians who do not concern themselves with the subject of preventive medicine. He also calls attention to the importance of the inspection of the school room, the examination of pupils before they enter school, the necessity of the inspection of the water supply before there is any prevailing sickness, the absurdity of waiting till an epidemic is at hand before an investigation is deemed necessary. He calls upon the medical profession to give the needed information in every community as the people are not generally well informed upon this subject, to write articles in the local papers, which would gladly lend their aid. He shows that it is much more important to prevent disease and suffering than to allow the development of sickness; then seek to offer aid and medicine; that while great good is done humanity by prescribing medicine and performing surgical operations, much greater benefit to mankind

is accomplished by warding off the danger.

The love of mankind should be uppermost in the breast of every physician, and their lives should be devoted to prevent sickness and distress, and not live for themselves exclusively,

Causes and Treatment of Abortion.

At a meeting of the "Delaware County Medical Society" held June 19th, Dr. W. Knowles Evans read a paper on the causes and treatment of Abortion. (Medical News, Aug. 1st, '95). The paper handled in such a way as to be really a review of the best thought of the profession on the subject, presented in a condensed form, was limited to the expulsion of the ovum before the fourth month. After drawing attention, by the statistics of Hager, Whiteherd and Hirst, to the enormous frequency of the premature expulsion of the foetus and the unfavorable influence that such incidents must have on the future health of the mother, the usual causes of abortion were given.

In regard to the mortality of abortions he cites Hirst's 926 cases with 13 deaths, a mortality of 1.4 per cent. The prognosis to the mother in these cases is good, the dangers being hemorrhage, the secondary effects in particular, and sepsis—the ovum being inevitably destroyed. The diagnosis of Threatened, Inevitable, Incomplete, and Complete Abortion was considered, attention being called to the excellent plan of examining the fragments discharged, in Incomplete Abortion, by floating them in water.

In the treatment of Threatened abortion he enjoins *Absolute rest in bed* and full doses of opium. The fl. ext. of viburnum prunifolium, in dram doses being also efficient. In cases of Inevitable abortion the hemorrhage is to be controlled by antiseptic vaginal tampons as recommended by Hirst, removing the tampon in eight hours and reapplying if required, the ovum being often found extruded, when the first is removed. If the deciduous membrane or the placenta remain behind, rest in bed, small doses of ergot, antiseptic vaginal an intrauterine douches and careful watching for the *first signs of sepsis* constitute the Expectant plan. The Active plan, which is better, consists in removing the uterine contents with a thoroughly antiseptic

finger or the curette (in experienced hands) followed by an intrauterine douche of creolin (2 per cent.) or as Rivièrs prefers, injections of Churchill's tincture of iodine. Beyond confinement in bed until involution is complete, very little after-treatment is required.

Intestinal Anastomosis.*

Certain conditions of the Intestines necessitate surgical interference. Tumors involving the gut, whether benign or malignant, fecal fistula and artificial anus, acute or chronic obstruction, appendicitis, with gangrene of the cecum; cases of irreducible intussusception; hernia, with gangrene of a portion of the gut; incisions of the intestines; wound of the intestines, shot or stab.

Operative measures to relieve these conditions were done in the eighteenth century, with such limited success that they fell into disuse and it has only been within recent years that the technique has reached a substantial basis.

The Murphy button, Senn's decalcified bone plates, the cat gut rings, Landerer's potato cylinder, Grant's clamp, and end-to-end anastomosis by direct suture, appear to me, one or the other, to be suited to any of these conditions, but to each of these plans there are objections.

Advantages claimed for the Murphy button are saving of time and facility of application. The objections are;

First, it is a foreign body, which may remain in the intestine an indefinite period.

Second, frequently the intestine is of such size that it is difficult to use the Murphy button. This was the condition in a case coming under my own observation.

Third, the orifice of the button may become obstructed.

Fourth, after passage of the button the lumen of the gut at the point of resection has been known to contract to a dangerous extent.

It is claimed for Senn's plates that the opening made from one intestine into another without resection can be more rapidly accomplished than without such mechanical device. Also, that the time of the operation is very much shortened.

The objections to this plan are that the plates are especially useful only in cases where no resection is to be made, because they do not shorten the time to any degree where it is necessary to suture the ends of the intestine before making this anastomosis. They also have the objection of being a foreign body, and the suture which passes through the plates entirely through the intestinal wall may be the means of conveying infection to the peritoneal cavity. This method will undoubtedly prove the most satisfactory of any in malignant disease obstructing the intestine where the diseased structures cannot be removed by resection.

Abbe's gut rings are intended to accomplish the same results, but are not generally considered so effective.

Landerer has recommended that a potato be trimmed to fit the lumen of the intestine, and hollow out to allow free passage of the intestinal contents. A groove is cut around the cylinder, at its middle, half way through its wall. In this groove a purse-string suture holds the ends of the resected intestine until they can be united by Lambert sutures.

Dr. H. H. Grant has recently devised a clamp to facilitate the operation of intestinal anastomosis. Which he has described in an article published in the *Annals of Surgery*, January, 1896.

This clamp while it aids in the approximation of the intestine, will only permit of a lateral anastomosis, therefore changes the direction of the intestinal contents.

The ideal operation, wherever it is possible to make a resection of the diseased or injured portion of the bowel, is end-to-end anastomosis with direct suture. The objections offered to this operation have been that it takes considerable time; that it requires some form of clamp to hold the intestine and keep the fecal matter out of the operative field, that it is difficult to prevent eversion of the mucous membrane, and to obtain coaptation of the serous surfaces.

I have experimented upon animals with this operation and the time required has never exceeded twenty minutes from the first incision until the abdominal wound was approximated by sutures, and I have known the operation to be performed in a shorter time, experimentally. Dr. Ap Morgan Vance reports an experimental case, in which he did this

*Abstract of a paper read before the Mitchell District Medical Society, at Shelbyville, Ind., June 29, '96, by Dr. J. G. Sherrill.

operation in nine minutes and fifty-three seconds, representing the time from "first blood" until the wounds were diessed and the dog was lying on the grass. In the hands of an operator who is ordinarily dextrous the time should not exceed eighteen minutes on the human subject. I believe that none of the other methods can offer a much shorter time than this.

Advantages of this operation are:

First, there is no change in the direction of the fecal circulation.

Second, no foreign body remains to cause future trouble.

Third, there is less danger of contraction of the gut as a result.

Fourth, it is nearest to the natural method of repair.

Fifth, the means of its performance are always at hand.

March 13, 1896, I was called to see a negro man who had been shot in the abdomen. Upon examination it was found that the bullet had entered below, and to the right of the umbilicus, ranging upward. The abdomen was opened, I found considerable blood in the cavity, and there was hemorrhage from a wound in the mesentery. There were two intestinal wounds, several inches apart, beside one in the mesentery. Those in the gut were ragged, and closure would have been impossible without sacrificing, to a dangerous extent, the lumen of the bowel. The largest size Murphy button was found entirely too small for use in uniting the ends of the intestine. Twenty inches of gut was resected and the ends united by direct suture, by a modification of the Wolfler method. The man made a good recovery.

The vessels supplying that portion of the intestine to be removed having been ligated, the intestinal contents are pushed away by gently stripping the gut, the diseased or injured gut is then cut away, an assistant holding either end of the intestine, and in that way preventing escape of fecal matter; the field of the operation and the interior of the excised gut are thoroughly irrigated, then by means of a straight, round needle, and thoroughly sterilized cat-gut, the ends of the intestine are brought together by a continuous Lembert suture completely encircling the intestine. I have found in my experimental work upon animals that this is sufficient to entirely prevent leakage from

the bowel. However, in order to be doubly sure, an additional layer of interrupted sutures can be applied.

My reason for using cat-gut as suture material is that no foreign material is left about the line of union, and I have found the cat-gut to remain unabsorbed a sufficient length of time for complete union to take place. I have not found it necessary to supplement this suture by the transplantation of omentum. Some operators prefer to use a suture of the mucous membrane primarily, and a secondary suture of the peritoneum. The mucous membrane in man is not so prone to eversion as in the dog, and having satisfied myself that this eversion may be overcome in the animal without direct suture of the mucous membrane, I believe it to be unnecessary.

The after-treatment should be, no opiates or food for two days; on the third day a saline purgative may be given, and on the day following a liquid diet.

Uterine Fibroid Cured without Operation.

In the Louisville Medical Monthly for July appears a readable article, with the above title, by Dr. J. D. Hitchcock, of Bates City, Mo. He cites a case from practice, in which the patient, an unmarried lady, twenty-nine years of age, had shown symptoms of developing tumor for some six or eight months, and, at first examination, revealed a uterine myo-fibroma, consisting of a pedunculated portion, about one-half the size of a foetal head, occupying the vagina and connected through the cervix with the larger intra-uterine body, which was attached to the posterior wall. The patient was very much weakened, and suffering intensely from headache, backache, etc.

After hinting at the objections to surgical interference in such cases, the doctor goes on to outline his course of treatment. This consisted of general tonics, astringent vaginal douches, and, for direct effect upon the tumor, Squibb's F. E. Ergot, one half dram three times daily, together with one half dram Tr. Iodine injected into the growth every third day. He notes that the injection was always very painful, and, singularly, caused the taste of iodine to appear almost instantly. This treatment was continued substantially for

about four months, with uninterrupted improvement, by which time the vaginal and intra-cervical portions of the fibroid had entirely disappeared, when the iodine injections were abandoned. The ergot was persisted in for several weeks longer, when, after some six months' treatment, the case was discharged as cured.

The paper is happily rounded out by an allusion to the gratification experienced in the sense of having successfully combatted a condition usually requiring surgical means, without such resort, and mention of the appreciation felt on reception of the patient's gratitude, an element frequently wanting in the monotonous grind of the general practitioner's life.

Morphine Habit.

In a paper on the above subject, read by Dr. N. J. Phenix before the Houston District Medical Association, March 11, 1896, and published in the Southwestern Medical Record, the writer maintains that the average practitioner should give more attention to the morphine habit, and not relegate his morphiomaniacs to the quack for treatment.

The vice often originates in the legitimate use of opiates for therapeutic purposes, but the indiscriminate dispensing of hypodermic tablets, granules and triturates, is largely responsible.

Habitués soon become accustomed to large doses—many taking as high as thirty or even sixty grains of morphine per diem.

Physicians should be more cautious in prescribing narcotics, and druggists should not be allowed to refill prescriptions containing opiates.

The curative treatment may be summarized as follows: If the physician would succeed in treating morphinism he must exercise great judgment in the selection of his cases.

The hearty coöperation of the patient and his relatives and friends is essential. The patient must surrender himself to the complete control of the physician and nurse throughout the entire treatment. If this cannot be done at home it is better to seclude him in some private boarding house, or in a sanatorium.

The morphine is to be withdrawn as rapidly as possible without endangering life or occasioning intolerable suffering.

The time required is usually from six to fifteen days.

During the first day's treatment, one-third of the usual daily ration may be cut off. After the first day the total amount administered may be cut down to two-thirds the amount given the preceding day, continuing this gradual daily reduction until a fraction of a grain is reached.

Dr. Mattison, of Brooklyn Home for Habitués, has devised a plan of sedation by bromides during the withdrawal of narcotics. On the first day, twenty grains of bromide of soda, or bromide of potash, may be given every four hours. Increase the dose five to ten grains each succeeding day until forty grain doses are reached, keeping the patient under the maximum effect of the bromides as he reaches the minimum dose of morphine. For insomnia a dose of chloral may be administered, provided the heart's action is not too weak.

Milk, eggs, concentrated broths, with stimulants and tonics should be freely given. Hypodermics of $\frac{1}{30}$ to $\frac{1}{20}$ gr. of the sulph. or nit. of strychnia will prove very effective in supporting the patient, and guarding against collapse.

For obstinate diarrhœa give astringents and laudanum. For symptoms of collapse, promptly administer stimulants and hypodermics of $\frac{1}{3}$ to $\frac{1}{2}$ gr. of morphine; for mania, etc., stimulants with a little morphine.

Fortunately, the severest symptoms will in a few days subside, but the patient must be kept at least fifteen or twenty days longer, to re-establish his mental and physical equilibrium, and thoroughly rid him of any appetite for the drug.

Upon releasing the patient, he must be forcibly warned and carefully watched to guard against relapse. Every factor that entered into the formation of the habit, must, if possible, be removed. He should not be allowed to resume the cares and worries of business too soon. His associates must keep constantly in mind the dangers of relapse, for upon their efforts his chance for final success will largely depend.

Diet in Pregnancy.

Eichholz considers that an excess of water and of albuminous food is to be avoided—water, on account of its tendency to produce hydramnion; and

albumin, because it favours excessive growth of the child. The following diet he has tried in a number of cases with the result that he considers it to be recommended:—Meat once a day; green vegetables and potatoes; avoid peas, eggs, and beans, as being too rich in albumin. Wine and beer to be taken in moderation, but no more fluid should be taken than is necessary. The advantages claimed for Eichholz's regimen are:—(1) The patients are active until the eve of their accouchement; they do not suffer from a sensation of fulness, excessive formation of fat, thirst, or constipation. (2) Rapid and easy delivery, even in those cases in which the previous labours have been prolonged and difficult. (3) There is never an excess of liquor amnii. (4) All of the women thus dieted have nursed their babies. The quantity and quality of the milk were always good. The children were small, but healthy and well-formed. They averaged about six pounds in weight, the circumference of their heads about 33.5 centimetres. Possibly the dieting of pregnant women is much too neglected, or, if it is done at all, it is carried out far too laxly. There is a good field open for investigation amongst those members of the profession who have a large practice in obstetrics to confirm, improve, or complete Eichholz's arguments.

Antitoxin Fatalities.

Gottstein has been induced to collect the references to deaths under, and presumably from, the antitoxin treatment in the literature. These fall under two headings, according to whether the patient was actually suffering from diphtheria, or whether it was inoculated as a preventive measure or when suffering from a throat affection which turned out eventually to be non-diphtheritic. In both these categories there are elements of difficulty. In the first it may be uncertain as to whether death resulted from the disease or the remedy; in the second the fatal issue may have been due to latent diphtheria or some other grave affection. It must also be remembered that many of the cases which recover develop complications due to the antitoxin; out of 1,805 such recoveries (in 2,228 cases) recorded in Berlin during the first quarter

of 1895, 420 showed exanthemata or other signs arising from the antitoxin, a total of 23 per cent. Gottstein enumerates 14 cases in which diphtheritic children appeared to have died from the effects of antitoxin, and 4 in which diphtheria was excluded, but the child nevertheless succumbed. He comes to the conclusion that in a certain definite number of cases, not confined to patients suffering from diphtheria, the injection of antitoxic serum has been rapidly followed by fatal collapse. He considers that in spite of the large number of cases which recover without any after-symptom, the fatal instances show diphtheria antitoxin is a more or less dangerous remedy, often leading to the symptoms of poisoning by fibrin ferment. He considers also that the proportionate danger is greater than that with chloroform, since the latter is at any rate certain in its action, whereas the serum often fails altogether, while its immunising power is most variable.

Malpractice Suits.*

Malpractice suits may be brought against any doctor with or without cause. The results are always damaging whether lost or won. Doctors should know the best methods of defense. When suit has been brought the defendant doctor should employ counsel. He should exercise great care in this matter because the average lawyer does not know much about the science of medicine. The doctor will have to teach him. He should, therefore, be eminently a student and a teachable man. Lawyers do not have their knowledge at their tongue's end, or as with doctors at their fingers end, ready for instant use. Their knowledge is labeled and indexed, and referred to as needed. Hence a defendant doctor must look up everything that can have a bearing on his case, favorable or otherwise, and index it. He must teach it to his lawyer. Defendant must recollect all that happened to the plaintiff, and must know what he will say on the witness stand, and what all his witnesses will say. Judicious detective work is valuable for this purpose.

Defendant should make a complete written statement of all the facts for the use of his lawyer. He should be careful

*Abstract of a paper read before the Weld Co. Med. Society, May 25th, 1896, by G. Law, M. D.

not to color these statements with his own personal equation. He should try his case in court, on paper, by writing out all the evidence for plaintiff, likewise that for defendant, carefully cross-questioning each witness. He should with the help of his attorney anticipate the objections of plaintiff's lawyer, and the court's probable ruling thereon. He should argue his case before the jury as he conceives his attorney should, as the plaintiff's lawyer will do.

Finally, prepare two sets of charges to the jury, one from the plaintiff's standpoint, and the other from his own. The trial will not be conducted in all respects in this cut and dried method. But this paper trial will form a basis for the campaign. All battles should have a plan. Books can not be read in court and offered as evidence direct. But books can be used very effectively by asking a professional witness what a certain book says, *having a bearing on the case*. If witness blunders, correct him by reading from the book.

Defendant should carefully formulate all hypothetical questions both for himself and plaintiff, as nearly as he can conjecture what plaintiff will.

Prosecution of these suits are generally after a well known plan and may be anticipated. Defendant may and should make his defense as novel as possible for the purpose of springing the unexpected on the plaintiff. Great care should be used in the selection of jurors. Men with grudges against the profession should be rejected. Men from the country should be selected with care. The merchant and mechanic in the city is less likely to have a prejudice against doctors. As many really educated and all round men as possible should be selected. Keep accurate notes of the trial. If the jury fail to agree and a mistrial ensues, be sure to get a transcript of the former trial from court stenographer with which to confront the witnesses. Carefully select real medical experts and treat them as if you valued their services.

Finally, doctors should keep accurate notes of all important cases. Treat your cases diligently. Try no experiments without the support of counsel. Law is conservative. Modern surgery and medicine progressive. The courts will hesitate to sustain the surgeon in new things

if the patient claims he thereby sustained damage.

All pleadings must strictly apply to the case in hand. Reputation can not plead in court—only *what did the defendant do or fail to do*. Make no special bargains, Never promise to cure. It will not do to plead you could not obey the summons of patient because of other business unless you can show that other business was prior. The legal sense of "ordinary" does not mean "average." It does mean the possession of acquirements that fit you to be a safe practitioner.

Diseases of the Trachea, Bronchi and Lungs, Treated by Intra-tracheal Injection.

The Medical Record of August 25, has an original article by Dr. Joshua L. Barton, of New York City, who presents this subject in an attractive and practical manner.

The writer goes very fully into the history of this method of treatment, and calls attention to the fact that cough is often caused by an irritation of the tracheal nerves, communicated to them through the tracheal mucous membrane. This cough may be alleviated by appropriate medication applied directly to the irritated mucous surface.

The technique is simple and will present no difficulty to an expert laryngologist. The irritation is very slight. It is in fact so non-irritating that after a little preliminary training the cocaine spray may be discontinued.

The remedies employed should be soothing, and the vehicle non-irritating. Olive oil, codliver oil, glycerine, mucilage, or any one of the petroleum oils may be used.

The following formulæ have been used with very favorable results, viz.:

Benzoinol.....	3 iv
E raphen, ...	2½ per cent.
Menthol.....	7½ per cent.

Or

Benzoneal.....	3 iv
Guaiacol.....	2 per cent.
Menthol.....	7½ per cent.

The strength, however, may be increased or diminished to suit each individual case, or other remedies may be substituted.

From half a drachm to one drachm may be injected at each insertion of the tube,

and this may be repeated at one sitting until from two to four drachms have been used.

This method of medication has several advantages, viz.:

1. The remedy is applied directly to the irritated mucous surface.

2. It immediately alleviates the most distressing symptoms, adding at once to the comfort of the patient.

3. In a certain number of cases the antiseptic effect of the medicine is very pronounced, as shown by the longer interval between the febrile attacks, and by their lessened intensity when they do occur.

4. The tracheal and broncheal mucous membrane rapidly absorbs the medication, so that we may expect a general as well as a local effect.

5. We avoid disturbing the patient's stomach with nauseating doses, and the shattering of his nervous system with opiates.

6. This method of alleviating the most distressing and annoying symptoms does not interfere in the slightest degree with any other line of general treatment which may be deemed advisable.

7. In cases characterized by an atrophic condition of the tracheal mucous membrane, or of pulmonary disease, with cavitation leading to retention and decomposition of the secretions intracheal injection will remove the disgusting fetor of the breath consequent upon this condition.

Good Results Following Urethral Resection.

Eugene Fuller, of New York, (Medical News) reports two cases in which, owing to extensive destruction of the urethra, he had originally expected to have been finally obliged to establish an artificial route either perincal or hypogastric in order to ensure a permanent outlet for the vesical contents. In both of them, however, by resorting to an extremely radical and extensive excision of the diseased urethral areas including the surrounding cicatrices he was able to permanently restore the normal urinary function. In one of these cases the excised tissue included the entire bulbous urethra, fully half an inch of the penile urethra anterior to the bulb, and the anterior inch of the membranous urethra. In the other an

inch and three-quarters of the bulbous and anterior membranous urethra was removed.

The first of these cases was operated upon a year ago, and now the urethra will take an 18 American, and has shown no tendency to contract. The second case, done ten months ago, admitted a 17 American sound easily four months afterwards, and since then has reported by letter that he was perfectly well and that his act of urination remained satisfactory.

Dr. Fuller then reviews the literature of resection of stricture, including that of urethral transplantation of mucous membrane which has been occasionally done in order to fill the gap left by the resection. The real efficacy of this latter procedure the writer doubts, and he brings forward strong argument in support of his tenets.

The author attributes a considerable degree of his success in these cases to the methods in technique which he has adopted. In writing of these modifications he says:

"As an after treatment I have adopted in my cases a method which has the advantages of the *"loude á demeure"* without its disadvantages. The advantages of the *"loude á demeure"* in resection, involving an extensive area of the deep urethra, are that it acts as a splint, as it were, in steadying the cut urethral ends, and in affording a firm cylindrical body about which the perineal tissues may be brought and moulded so that in healing they may be made to conform as nearly as may be to the shape of the new urethra. The disadvantages of this instrument are that it cannot be removed if its presence in the bladder causes tenesmus. If vesical tenesmus be violently excited then urinary infiltration into and suppuration of the perineal tissue may result. If the *"loude á demeure"* is once removed it cannot be replaced, and in such an event the only thing to do in case firm union of the tissues has not taken place is to open anew the perineal wound. The method I use is as follows:

After resection has been accomplished I make a very low cut dividing the deepest portion of the membranous urethra, the lowest portion of the perineal structure and some of the circular fibres of the sphincter ani. Along this low level route I place a large calibre soft rubber vesical drainage tube. I then introduce along

the urethra a soft catheter of such a calibre that it can be retained with comfort. This catheter extends from the meatus along the penile, the resected and the deep urethra down to the big perineal tube, and about it the perineal structures are carefully sutured. This urethral tube is kept in for a week or ten days as the case may be. The big perineal tube can be withdrawn and replaced if needs be without in the least disturbing the urethral tube."

The histories of the reported cases are then given in detail. In the second one extravasation of urine between the layers of the pelvic fascia existed as a complication. The method adopted of draining this through the space of Retzius is well worth noting.

Note on Eucaine as a Local Anæsthetic, by Robert Brudenell Carter, F. R. C. S., Eng., Consulting Ophthalmic Surgeon to St. George's Hospital from *The Lancet*, London, July 11, 1896.

Dr. G. Vinci of Messina, described Eucaine as possessing the properties of cocaine as a local anæsthetic, but as being less toxic and as having no effect upon the pupil. The last statement seemed to me to be of practical importance, because a dilated pupil is an impediment to the performance of many operations upon the eye. It has long been my practice to neutralize the dilating effect of cocaine by a preliminary application of eserine, but this course is not entirely satisfactory. It is difficult to secure the precise degree of effect which is desired, while the eserine dilates the vessels of the iris and occasions free bleeding when they are incised. It also renders the iris tissue comparatively rigid, so that it is less easily drawn out of the anterior chamber. I obtained a supply of a 5 per cent. watery solution of Eucaine Hydrochlorate from Mr Rogers, of 327 Oxford street and used it last week for a cataract extraction, the patient being a woman. Before my arrival, the nurse had applied a drop of the solution within the lower lid every five minutes for six times, and I found the eye perfectly insensitive. The pupil was unaffected and acted readily to light. There was scarcely any bleeding from the cut iris; there was perfect quiescence of the muscles and there was no pain, I asked the patient whether she had felt anything and she replied, "I felt some-

thing moving {about my eye, but it did not hurt me." There was no pain afterwards and healing was uninterrupted. I have since successfully used a single application of the same solution as a preliminary to the removal of a foreign body imbedded in the cornea.

In the original paper, it is said that Eucaine has been successfully used in dentistry and laryngology, and that solutions may be injected hypodermically without injury. My first experiments will certainly induce me to use it again and for tenotomies as well as for iridectomy or extraction. It is said that the solution, above mentioned, may be sterilized by boiling, again and again, if necessary, without undergoing decomposition or suffering any deterioration of quality.

Compound Fractures.

At the meeting of the Michigan State Medical Society, at Mt. Clemens, June 4th, last, Dr. W. T. Dodge, of Big Rapids, read an interesting paper upon "Compound Fractures."

The writer takes the position that amputation should not be immediately performed even in severe crushing injuries of the limbs, and that the traumatism in such cases should not be increased by immediate attempts to place the fractured bones in apposition, but that the injured member should be placed at rest, surrounded by warm antiseptic applications, and nature given a fair opportunity to throw off tissues hopelessly destroyed and restore those capable of restoration.

When the line is thus formed between dead and living tissues the surgeon can assist nature by hastening the removal of the dead tissues and placing the living ones in position to form a useful limb.

The writer reports seven cases in the paper, one of whom had a severe crushing injury of the leg and foot. He had been caught between two logs and the tibia sustained a compound comminuted fracture. The first metatarsal bone was fractured, forced from its attachments, through the skin, stocking and boot, and thrown a distance of several feet. By the application of the principles advocated in the paper the leg was saved and the man given a useful limb.

The writer speaks from an experience of six years as Surgeon to Mercy Hos-

pital at Big Rapids, where he has had charge of more than seven hundred cases of injury.

WATERLOO, S. C., June 12, 1896.

Editors Charlotte Med. Journal, Charlotte, N. C.

Please give me a diagnosis in this case. I am a reader of your most excellent Journal, and will be happy, indeed to hear your opinion of this case.

Mr. B. had measles in 1887, did well—an early convalescence. After this, there is a line of symptoms which have existed since above date, 1887. No cough, digestion perfect, assimilation good. There is a twitching feeling of the muscles of chest and abdomen; sometimes it feels as if pins were in contact with surface-skin. The hand may be pressed over this surface and the unpleasant feeling will change to another region. At one time it is found in mid-sternum region, again in epigastric. The feeling is described by patient as if something were creeping over the surface, as if a worm were crawling over chest muscles, then abdominal ones. Sometimes it seems to be slightly painful, feels as if half a dozen needle points were in direct contact with the skin, but not puncturing. This feeling fluctuates.

The mind may become absorbed in conversation, the patient busy at any work, or asleep, and no such sensations are experienced. As soon as he thinks of the trouble, at leisure, or as soon as he awakes, these symptoms all begin. He may go to bed, go to sleep, and as soon as he arises next morning the twitching of muscle (feeling), the "creeping," the "crawling" sensations begin. May get out and ride five miles, horse back, and not feel it—the muscle sensations—till he sits down and gets quiet, then the above symptoms begin.

These symptoms have continued since 1887—a sequela of the measles. A plaster of belladonna gives relief while on chest. A mustard plaster will subdue the symptoms temporarily. Hypophos., com. syr., nux vomica, Fowler's solution, *iron* and *digitalis*, have been used, but symptoms continue as above.

Patient had typhoid fever four years ago. Since this time his general health has greatly improved, and above symptoms have modified some, still they are present, and have been uninterruptedly since 1887—nine years.

What is your diagnosis? The trouble must be nervous in nature. The heart's action is normal. What will help this patient?

W. R. HARRIS, M. D.

Anæsthesia is the diagnosis of the disease described by Dr. Harris. It is a condition of insensibility, or loss of feeling, due to pathological conditions of the centres, conducting paths of the nerves, or the peripheral terminations of same. It may be of all degrees, superficial or deep, and may be located in any part of the body. It is generally attended by formication and burning, prickly pains,

In the form of hemi-anæsthesia the nerves of special sense are most frequently implicated and usually depends upon lesion of the fibres of communication between the hemispheres and optic thalamus or in the external capsule. Lesions of the tegmentum of the crus produce opposite hemi-anæsthesia.

Treatment.—The majority of cases yields very promptly to the influence of the electric current. The methods of applying electricity in anæsthesia are galvanism of the brain and spinal cord, localized galvanization and faradization, the latter especially by means of the faradic brush. Also, galvano-faradization is indicated in some cases.

When the galvanic current is employed the anode should be placed over the nerve-root, and the cathode over the anæsthetic area, for the indication is to produce excitation of the skin.

Cholera Infantum.

At a meeting of the Henry County Medical Society, Dr. J. Beverly Deshazo, of Ridgeway, Va., read a paper on Cholera Infantum.

The writer states that country reared children suffer almost as often as their city cousins, though not as severely; boys are more often victims than girls; believes the products of the *bacteria* of the disease acts locally; and thinks with proper care in nourishing most cases would be avoided. He advocates the giving of a bromide during dentition, and the administration of a vermifuge, if indicated, as splendid prophylaxis.

He drew attention to the erroneous method of classing many different dis-

eases under the head of chronic cholera infantum, though forced to follow this plan, he did it reluctantly. Particular attention was called to the importance of finding the cause of the disease, and the value of giving a bromide, as great aids in making a diagnosis.

The plan of treatment of acute cases outlined, was to arrest the vomiting by applying a mustard plaster, and give plenty of crushed ice and bismuth, calomel and lime-water, in frequently repeated doses in succession as required, and irrigate the stomach if practical. To control the bowels after stomach is quieted, give Dover's powders, or paregoric and bismuth, and in case of failure of above, urges a hypodermic of morphine as the very best remedy, if in the hands of a careful attendant.

After the stomach and bowels are quieted, the physician should supervise the preparation of some food, if bottled, to see it is what it should be, and should give a digestant, pepsin or pepsin, or lactopeptine, as best suits the patient.

The writer thinks a disinfectant for the bowels urgently demanded, but believes salol and all others 'a shot at long range.' Irrigation of the colon with solutions of peroxide of hydrogen, or of hydrozone offers a beautiful theory and splendid results.

Chronic cases are treated with digestants, opiates and bismuth, aided with lime-water, and change of hygienic surroundings.

The practice of giving cathartics in these varieties, he emphasizes as wrong in theory, and invites disastrous results, but believes in absolute quiet. If child is teething a bromide will act as a hypnotic, and astringents will have double the usual effect.

His general line of treatment is to feed properly, give plenty of stimulants, and protect from cold and cathartics.

In conclusion, the responsibility of the medical attendant is made clear, and he is urged never to give up a case as hopeless as long as he has a spark of life to support.

Epidemic Typhoid Fever.

In the Virginia Medical Semi-Monthly of July 24th, 1896, Dr. Wm. S. Gordon, Professor of Physiology in the Univer-

sity College of Medicine, Richmond, Va., contributes a paper on Epidemic Typhoid Fever, read July 14th, 1896, before the Richmond Academy of Medicine and Surgery.

The twenty-five cases occurred in an institution for boys of which the writer was attending physician. The disease prevailed from September, 1895, to the close of the year. The cause was traced to polluted well and brook water. All of the typical symptoms were present in the composite picture, but the atypical cases were marked, demonstrating how a common poison may produce a diversity of symptoms, according to the constitution of the patient and the amount of poison imbibed. The study of these cases, also, throws a doubt on the existence of co-called Typho-Malarial Fever.

The following treatment was adopted: For the fever, cold or tepid sponging, sweet spirits of nitre, and spirit of mindererus; for delirium bromides, sponning, whiskey, and cold to the head; for diarrhoea and tympanites, turpentine, bismuth, salol, and paregoric; for intestinal hemorrhage, opium, cold to the abdomen, abstinence from food, and turpentine; for asthenia, whiskey, digitalis, and strychnine. The food consisted of sweet milk, buttermilk, oat meal and barley gruel, steamed eggs, and other liquid preparations suitable to the case in question. Absolute rest in bed, and quietude of mind were enjoined. A trained nurse was put in charge of the hospital and carried out the hygienic directions faithfully. There were no deaths or permanent sequelæ.

The lessons which the writer thinks can be learned are: that we have no specific for typhoid fever; that careful dieting and strict confinement to bed are all important, and will, in the vast majority of cases prevent relapses; that water and milk are the most common carriers of the poison; that each case must be treated on its merits; that turpentine is a valuable remedy, fulfilling many indications; that quinine should not be continued if, when pushed to gentle cinchonism, it does not break the fever in several days; and that judicious intestinal elimination and antiseptics are important factors in treatment.

False teeth are now made from paper, and are said to last a lifetime.

Comprehensive Survey of Diphtheria.

The July number of the Denver Medical Times contains an article entitled "A Comprehensive Survey of Diphtheria," by Dr. Arthur Corda Bell. The writer certainly merits the title of his interesting paper.

Considering the voluminous amount of literature on the subject of diphtheria, it is remarkable that the writer could condense into 3½ pages of print a justly entitled Comprehensive Survey of Diphtheria. It is clear that the writer intended that a medical student could take his discussion, learn a brief history of diphtheria, recognize the symptoms, discover the etiology, make the diagnosis, learn the differential diagnosis, mark the development of the germ theory recognize the diphtheritic membrane, comprehend the pathology, and learn to treat the disease. The doctor attempts, by fourteen differential points, to prove that membranous croup and diphtheria are two distinct diseases. He has attempted to bring the article up to date and to have it as reliable as a text book. The following is an extract of his paper:

Diphtheria is a disease of wide spread devastations. It is infectious and contagious—a disease specific in character with epithelial changes and constitutional manifestations. The exudation of fibrin on and into the mucous membrane constitute the pseudo-membrane. Three forms of the pseudo-membrane are described, (a) degenerated pavement epithelium, (b) solidification of muco-fibrin, (c) purulent fibrin. Dr. Baird, of New York, 1770, was the first to describe M. pharyngitis, M. laryngitis, and both combined. Dr. Bretameau discovered that angina suffocativa, cynanche contagiosa, and other forms of malignant sore throat were identical, and suggest the name diphtheria, 1821.

The constitutional effects are thought to be due to (a) absorption of septic material from the local lesion, (b) chemical agencies, (c) degeneration of blood by cocco-bacteria, directly or indirectly. In an attack there will be malaise, fever, chilliness, anorexia, tinnitus, and on the tongue a thick, white, adherent covering. Fauces red, swollen, and covered with diphtheritic deposits which coalesce to form the pseudo-M. This, with the Klebs-Loeffler bacillus constitutes the pathog-

nomic sign. The etiology of this disease affords three factors, (a) local, in wounds, (b) originales in the pharynx, (c) contaminations of the blood from which constitutional effects supervene.

There are three manifestations of the pseudo-M. (a) It lies loosely on the M. M. (b) Incorporates into M. M., and bleeds on removal. (c) White infiltration deeply imbedded causing necrotic changes. In color the pseudo-M. is grayish white, dirty gray, yellowish or brownish. The urine may contain degenerated epithelium, albumin, fibrin, hyaline casts and uric acid. Early nephritis as a rule runs a rapid and fatal course. It naturally follows that inhalations, ulcerated surfaces, abraded epithelium and hungry lymphatics are largely responsible for the absorption of the poison. In doubtful cases search for the Klebs-Loeffler bacillus, inoculate animals, or make cultures from the membrane in bouillon.

In the profession many believe that diphtheria and membranous croup are identical. The writer inclines to the belief that they are distinct diseases, and, therefore, submits the following:

DIFFERENTIATION.

<i>Diphtheria.</i>	<i>Membranous Croup.</i>
1 A constitutional disease.	1 A local disease.
2 Generally epidemic	2 Not.
3 Pharynx extensively involved.	3 Not.
4 Klebs-Loeffler bacillus.	4 Not.
5 Begins insiduously in pharynx.	5 Abruptly in larynx.
6 Contagious before & after death.	6 Not.
7 Membrane extends to other parts.	7 Not.
8 M. extends from pharynx to larynx.	8 From larynx to pharynx.
9 Pseudo-M. incorporated into M. M. and bleeds on removal.	9 Lies loosely on M. M. No hemorrhage on removal.
10 Paralysis with or after.	10 Not.
11 Albumin, uric acid and casts.	11 Not.
12 Septicemia generally present.	12 Not.
13 Death usually due to sepsis.	13 Usually due to suffocation.
14 Fever always present.	14 No fever.

Treatment is embraced under three heads (a) Prophynaxis. (b) Constitutional. (c) Local. Keep mucous membrane clean and healthy. Look to the general health. A combination of iron, quinia, and potassi chlorate acts both locally and constitutionally. Bromine, according to Thomp-

son, (a) arrests putrefactive blood changes. (b) Arrests decomposition and destroys fetor. (c) Destroys germs and prevents the spread of the disease. Jaborandi, calomel, and the chloride of gold have been recommended. Behring's remedy, antitoxin, is a most recent remedy. It carries germicidal properties into the blood. The effect of the Roentgen X ray is reported efficient.

In case of death bury quickly. Burn bedding and clothing. Locally, sprays and antiseptic gargles may be used. The so-called solvents of the pseudo-M. are as follows: Lactic acid, pepsin and glycerine, hydrogen peroxide, and trypsin. In cases where there has been no rise of temperature during the course of the paralysis, the galvanic and faradic currents may be of service.

The Alcoholic Liver.

One of the most common results of constant use of alcohol is acute inflammation.

This may affect any organ, but its attacks are principally confined to the brain, the stomach, and the liver. These are precisely the same as when it proceeds from any other cause. The inflammation of drunkenness is, in a great majority of cases, chronic; and the viscus which, in nine cases out of ten, suffers, is the liver.

LIQUORS,

from the earliest ages, have been known to affect this organ. Probably the story of Prometheus stealing fire from heaven and animating clay alluded to the effects of wine upon the human body; and the punishment of having his liver devoured by a vulture may be supposed to refer to the consequences which men draw upon themselves by over-indulgence—this organ becoming thereby highly diseased. Man is not the only animal so affected. Swine which are fed on the refuse of breweries have their livers enlarged in the same manner. Their other viscera become also indurated, and their flesh so tough that, unless killed early, they are unfit to be eaten. Some fowl-dealers are said to mix gin with the food of the birds, by which means they are fattened, and their livers swelled to a great size. The French manage to enlarge this organ in

geese by piercing it shortly after the creatures are fledged.

This is a viscus which, in confirmed toppers, never escapes; and it withstands disease better than any other vital parts except perhaps the spleen. Sometimes, by a slow chronic action, it is enlarged to double its usual size, and totally disorganised, and yet the person suffers comparatively little. The disease frequently arises, in tropical climates, from warmth and other natural causes, but an excess in spirituous liquors is more frequently the cause than is generally imagined.

THE CONSEQUENCES

which follow chronic inflammation of the liver are very extensive. The bile in general is not secreted in due quantity or quality, consequently digestion is defective. The bowels, from want of their usual stimulus, become torpid. The person gets jaundiced, his skin becoming yellow, dry, and rough, and the white of his eyes discoloured. As the enlargement goes on, the free passage of the blood in the veins is impeded, and their extremities throw out lymph; this accumulating, forms dropsy, a disease with which a great proportion of drunkards are ultimately more or less affected.

The jaundice of drunkenness is not an original disease, but merely a symptom of the one under consideration. A very slight cause will often bring it on; it is consequently not always dangerous. Dropsy is, for the most part, also symptomatic of diseased liver, but sometimes, more especially in dram-drinkers, it arises from general debility of the system. In the former case, effusion always takes place in the cavity of the abdomen. In the latter, there is general anasarca throughout the body, usually coupled with more or less topical affection. In every instance dropsy, whether general or local, is a very dangerous disease.

Duration of Chronic Pulmonary Phthisis.

Hanot says the entire length of any given case is difficult to determine; there is always a latent and an apparent stage. The chronicity of phthisis is intimately connected with either sclerotic transformation of the primary tuberculous lesion, or with calcareous or cretaceous transformation of caseous foci. The lesion

itself is a result, and not important; and not it, but its seat or method of invasion determines the evolution of the disease. Not only the degree of virulence of the micro-organism, but the resistance offered to it have to be considered. Indeed, the soil plays a more important part in chronic pulmonary phthisis than in almost any other infectious disease. Influences which hasten or retard the disease may be dependent on special properties of the individual, or of the micro-organism concerned, or upon cosmic and social media, or upon accidental pathological surroundings, or injudicious medication. After the onset of the disease, impure air, dark rooms, and unsuitable food tell unfavourably upon it. In those subject to great mental depression, such as prisoners, in the overworked and badly fed. Hanot has observed a tendency to collapse, a rapid course of the disease, and at the same time a marked disproportion between the general and local conditions. Hospital nurses seem to be especially liable to phthisis. Cold is very prejudicial, often provoking relapses. Pregnancy and lactation exert a prejudicial influence. Among intercurrent pathological conditions it has been claimed that cardio-vascular hypertrophy is a potent predisposing cause. Influenza and syphilis certainly aggravate the disease; the use of alcohol accelerates it. Serofibrinous pleurisy, or pleural suppuration, or pneumonia occurring in the course of phthisis does not seem to hasten its evolution. Tuberculous laryngitis, or participation of liver, brain, or meninges in the tuberculous process are of capital importance. Mistakes in the administration of drugs—for example, giving iron where there is liability to hæmoptysis, impure cod liver-oil, creasote to the derangement of the digestion, or improper purgatives—may aggravate the disease. Phthisis associated with emphysema, as well as the fibroid variety found in arthritic subjects, run a slow course. Chlorosis does not predispose to phthisis, and no definite conclusions can be stated with regard to the course taken by phthisis in scrofulous individuals. Age exerts a great influence in the prognosis, sex none at all.

Never neglect to examine the lungs in all cases of ischio-rectal disease and fistula in ano.

Climato-Therapy.

The July number of the American Therapist contains the last installment of a series of ten very interesting and instructive papers on "The Resources of Climate in Health and Disease, With Some Remarks on Special Climates," contributed by Dr. Samuel S. Wallian, of Helix, California, formerly of New York City, a medical writer whose trenchant pen is frequently heard from in current medical literature, and whose reputé is not confined to this country.

As the work is, after thorough revision, to appear in book form we will not attempt to epitomize it, but can not refrain from quoting a few passages at random, to give our readers some idea of the treat in store for them when the little brochure is completed.

Modern usage has made the word climate mean very much more than merely the slant of the earth's surface as regards the sun's rays, which was its original signification.

"Climate is to a country what temperament is to a man—Fate."

It is not merely in a figurative sense that the words climate and civilization are synonymous. Civilization and intellectual progress are possible only by means of favorable climatic environment. The native of Guinea yet remains but a few removes from the chimpanzee, and the lean and imbruted Terra del Fuego scarcely outranks the wild animals on which he preys. It is climate that has evoked and necessitated the myriad industries which spur and occupy mankind. It has compelled the construction of shelter from the weather—habitations—and, hence, the science of architecture; the felling of forests, subjection of deserts and building of highways, hence, the development of commerce; the designing and production of textile fabrics and the manufacture of clothing; the invention of instruments of precision, thus necessitating a system of mathematics, the evolution of skilled labor and complicated machinery. Railways, the telegraph and telephone, electric light and motors, and the thousand and one appliances of convenience, elegance and necessity are but a natural sequence. Climate is the often unaccredited but really dominant factor in the etiology of the more fatal forms of disease; hence the necessity for the

sciences of chemistry, botany and physiology, and of the various systems and pseudo-systems of medicine. The expression of these arts and sciences necessitates a literature, and thence follow the fine arts, as legitimate accompaniments and luxuries. Notwithstanding all this, the study of climate by the medical profession has barely been begun, and broadly universal as well as feasible measures for modifying and improving inequable climates, as by forest culture, artificial irrigation and cultivation, the development of artificial bodies of water in arid regions, etc., have not yet been seriously considered. Latitude has little significance in connection with the study of any given climate. An isotherm projected across this continent would intersect a given parallel, or even several parallels, a number of times, in passing from ocean to ocean. The sanitarian studies climate in its bearings on the physical development and longevity of the race, and in relation to the prevention of disease. The therapist studies it to learn its capabilities for ameliorating or removing disease, after it has appeared.

Some enthusiastic author asserts that "Change of climate is equivalent to new birth." Just why has never been adequately explained, usually goes unquestioned, and is certainly very imperfectly understood. It is as necessary to be acclimated as to be born. The ocean is practically the thermometric regulator and climate equalizer of the world, yet is itself subject to numerous modifying, auxiliary and opposing influences.

Contrasting the Old World and the New, with respect to their climatic zones, they present peculiarities which make them quite opposite in character. The Old is composed of four continents grouped in a compact mass. The New has but two continents, and these extend in but two directions. The Old is continental; the New is comparatively insular. Asia is tropical in only a few peninsulas. Europe lies wholly within the temperate zone, Africa alone embracing a strictly tropical belt. America embraces all zones, from the frozen ocean on the north to the antarctic seas at the south. The western hemisphere has been styled the humid side of the world, the eastern hemisphere the arid half. All forms of animals and plant life lapse and deteriorate as we recede from the equator.

Developmental processes are retarded by every fall of the thermometer. The vital forces of the plant or animal are diverted when they are obliged to resist cold. Heat is stimulating; frost inhibitory. But this law does not hold when referred to the human species. The purest and noblest specimens of the genus *homo* have developed within the mid-temperate zone. As we recede from this center the types progressively decline.

The author proceeds with a very comprehensive study of the numerous influences which contribute to make, modify and mar climates, and after comparing the climatic characteristics of the various continents and countries of the world, discourses intelligently of the famous and special climatic resorts of Europe and America.

Throughout the series there is not a line that suggests the cut-and-dried inspiration of the guide books, but everywhere a refreshing independence and originality of style, and an assurance largely born of personal experience and observation.

Large Parosteal Fibro-sarcoma of the Thigh.*

William J. F., aet. 42 years, laborer, was admitted to the Cincinnati Hospital, February 15, 1895, for the treatment of a large tumor of the right thigh.

Family history presents nothing unusual, except that one brother had, it is claimed, a tumor of the thigh, supposed to be carcinomatous, removed by medicine.

The patient has always led a quiet life, never used alcoholics to excess, and has never been infected with venereal disease. Twenty-two years ago the patient fell and struck the affected leg. Nothing was noticed, however, for thirteen years, when a hard lump developed about the middle of the posterior portion of the thigh. The tumor seemed to be in the muscles, and grew slowly for eleven years, not attaining in that time more than one-half its present size. Until the last year the patient has had no pain, but since then he has had considerable aching in the growth. In the last three weeks the patient has taken about one

*Joseph Ransohoff, M. D., F. R. C. S., Cincinnati Annals of Surgery, Aug. 1896.

dozen doses of morphine for the pain. Within the last year the tumor has developed such proportions as to seriously interfere with the patient's gait, in that pressure is made on the opposite limb.

At the time of the operation the posterior internal aspect of the right thigh from the gluteal fold to the knee presented a tumor, ovoid in shape. The upper margin of the tumor extends to the ischial tuberosity and through covering the anus interferes somewhat with defecation. In walking, the inner margin of the tumor seriously impinges upon the corresponding surface of the left thigh. Over the surface of the tumor are seen very many large and tortuous veins. These appear to be partly embedded in the surface of the growth, the channels in the latter being easily felt. The tumor is uniformly hard, presenting a rather even surface, although nodules can be felt in two or three places. In addition to the main growth, two masses as large as a double fist can be felt in Scarpa's triangle. They are seemingly separated from the main tumor by a considerable interval. The latter shows absolute dulness on percussion; auscultation proves negative.

MEASUREMENTS.—The upper part of the thigh, close to the body, measures 24 inches, sound side 21 inches; center of thigh, corresponding to largest part of tumor, 32 inches, sound thigh 17 inches; length of growth 19.5 inches. There is slight mobility of the growth upon the femur.

From the history of the case it appeared that what was originally a fascial tumor had become adherent to the linea aspera, and had assumed the form of a parosteal sarcoma.

Operation, February 18, 1895, in the amphitheatre before the class. Ether anæsthesia, ischæmia produced by elevation of the limb for fifteen minutes and the application of two Esmarch bandages, one encircling the pubes, tuberosities of the ischium and iliac crest, the other applied at right angles and held by an assistant to keep the first from slipping. The position of the tumor precluded the use of transfixion needles. An incision, twelve inches in length, was made along the length of the growth, with Y-shaped extension at either end. Thus two flaps were formed, which were dissected from the growth. This was found to be surrounded by a well formed capsule, to

which the muscles were firmly adherent. Very considerable difficulty was encountered in separating the great sciatic nerve from the growth, since it had lost its normal shape and was spread out as a flattened wide band over the surface of the tumor and quite adherent to the capsule. With comparatively little hemorrhage the posterior and lateral surfaces of the growth were exposed by the free use of the knife and scissors, the dissection being made as far from the surface of the growth as possible. From the upper and lower ends of the linea aspera the tumor was separated by means of periosteal elevator, but the attachments to the middle eight or nine inches of the femur were so tense that they had to be broken by main force.

When the tumor was thus removed it was found that the femoral artery had formed attachments to the under surface as it winds into the popliteal space, and was lacerated. It was easily seized on both sides of the tear and tied. The exceeding large wound presented a very ragged appearance. It was packed firmly with gauze, the Esmarch straps removed and bleeding points sought and ligated.

From the divided muscles there was a good deal of oozing, which was overcome by packing held in place by silkworm-gut sutures tightly drawn. Salt water infusions were repeatedly made during the operation, out of which the patient came in a state of extreme shock. He was retained upon the operating table for several hours, the usual stimulants being resorted to. Owing to the condition of the patient, the secondary growths in Scarpa's triangle were not interfered with at this operation. Weight of tumor eighteen pounds.

February 21, pulsations in the dorsalis pedis were felt for the first time; circulation in the leg good. The gauze packing was removed on the fourth day and showed what was to be expected in such a large and ragged wound, a slight infection. The wound in the posterior part of the thigh closed rapidly after the removal of the gauze.

On the 28th day after the operation, the tumors were removed from Scarpa's triangle by an operation which presented no special points of interest. The patient left the hospital on the 11th of June, walking without crutches, with both

wounds firmly cicatrized over and no recurrence of the growth.

On the 15th of May the report from the patient stated that he continued in good health.

Dr. A. H. Freiberg, curator of the Cincinnati Hospital, examined the growth microscopically and found it to be a fibrosarcoma with bone formation.

Albuminuria.

At the February meeting of the West Penna. Medical Club, Dr. J. Hartley Anderson read a paper on Albuminuria. A theory of its cause and a therapeutic suggestion. His theory is that Bright's disease is the result of asphyxia of the kidney cells. Metabolism of cells depends on appropriate food supply and environment. The nutrition of the cells results in disintegration of the food molecule and extension of waste atoms and radicles. The dependence of one group of cells on another in the animal economy for its food supply makes it evident that the waste of one cell becomes the food of a second, and so on, until unoxidizable and easily dissolved substances result and are extended.

If one set of cells defaults, it reacts on a second, seriously interfering with their specialized work.

One very important element in the life of a cell, and common to all living cells, is oxidation. Oxygen is the prime factor in the interchange of atoms from food and replacing the protoplasmic disintegration. This agent with the vital action of the cell is so powerful that alizarin blue may be oxidized to alizarin white by the cortex of the brain, kidney, liver cells and heart muscle.

The liver acts as a guard, oxidizing many of the substance of a leucomain nature which abstract large quantities of oxygen from the cells and actively diminish its oxygen store. It may be that glycogen, which contains a large proportion of O., is the liver cells' store house.

If the liver cells default, acid leucomain products and the unnatural food supply to other tissues enter the circulation and embarrass and exhaust the oxygen supply of these cells. The leucomains and other substances, when they come in contact with, for instance, the kidney cells, exhaust the cells more rapidly than they

can renew their oxygen, and, perhaps, so fatigue them that it disintegrates the protoplasm or chumatin fibers of the nucleus. In the middle stages, perhaps, the cell gives up its specialized function, that of preventing transuding of blood serum, from which it may recover.

If the cells of the kidney tubules have relatively different reactions to chemical dyes, and we know that the convoluted tube transudes the urea, and the malpighian tuft the water, it is fair to suppose other cells of the tubule have respectively different secretions. So a scale of oxidizing organs might be formed each acting as a reducing organ and accounting for the various urinary products. If this were true, and as we have seen with alizarin blue, that the chemistry of these cells is intense, it is fair to suppose that the kidney elaborates compounds which are the food of other organs, and returned to the circulation, eliminating special obnoxious substances through chemical interchange.

If the default of the liver reacts on the kidney, a default of the kidney will, in like manner, injure other organs. Yet this default is always through the one agency, asphyxia of the individual cell, or exhaustion from over-work, which amounts to the same, for in over-work the acidity of the cell prevents its oxygen storage.

The question is, can a default of this nature be benefitted by a full supply of oxygen. The trouble of using oxygen is the limited amount that can enter the circulation in a comparatively short time. The loosely combined O in the red corpuscles is extremely limited in proportion to the amount of injury that may be going on at seat of disease. When we consider that 75 per cent., by weight, of the organ is composed of oxygen in combination, and but a small fraction of the total weight of the blood current is loosely combined oxygen, it strikes one that under the most favorable circumstances repair will take a long time, with super-saturation of blood by inhalation. I have experimented with oxygen in Bright's disease, and although the disease in late stages was not cured in any way, the patients were made more comfortable, dyspnoea lessened, cyanosis improved, heart action and blood pressure reduced one-third, quantity of urine increased, urea increase, specific gravity very slight, albuminuria disappeared en-

tirely for quite long periods, and insomnia immediately benefitted even after fifteen minutes inhalation. I would, therefore, recommend in nephritis

1. Oxygen by inhalation for long periods.

2. Careful dietetics and prevention of formation of intestinal leucomains as recommended by Bouchard.

3. Reduction of blood pressure, and usual tonic and eliminative measures, quiet life, and care for those oxidizing organs which may, in some measure, compensate the kidney function.

Periodical Neuralgias of the Trigeminal Nerve and Their Relation to Migraine.

Dr. James J. Putnam, of Boston, read before the Association of American Physicians, a paper entitled "Periodical Neuralgias of the Trigeminal Nerve and Their Relation to Migraine."

The object of the paper was to call attention to a special form of Supraorbital Neuralgia characterized by regular intermission which recur at certain seasons, and to point out its relationship to migraine. This neuralgia has been spoken of by many writers, but has never received the attention that it deserves.

Many other forms of neuralgia are marked by this tendency to periodical recurrence of the pain, but none except migraine shows this tendency in the same degree with the form under consideration.

The pain usually comes on at 8 or 9 in the morning and lasts until the afternoon, and this happens day after day for two or three weeks, or even two or three months. It is more likely to occur in the spring and autumn than at other parts of the year, and some persons have one or two attacks every year, for many years.

The cause of the attack has been supposed to be malaria, but, although this may sometimes be the case, it happens more commonly that malaria is absent. In many cases the acute catarrh of the frontal sinus is present, but sometimes there is no obvious cause.

This form of neuralgia occurs most often with individuals and families subject to true migraine. More strictly speaking, the cases may be divided into three groups:

1. Those in which no migranoid or

other special neuropathic tendency is traceable.

2. Those where other members of the family have had this same form of migranoid neuralgia with perhaps a touch of true migraine.

3. Those where the patient's attacks and those seen in other members of the family very nearly approach to the true migraine type, so that, in fact, the diagnosis is in question.

The best treatment for this neuralgia is quinine given in very large doses, four hours before the expected attack; arsenic; a treatment of the nose; a change of air.

At the same meeting, Dr. W. H. Thompson, of New York, called attention to the value of full doses of ergot for this affliction.

Employment of Eucaïne in Ophthalmic Practice.

By DR. EMILE BERGER.

The attention of the readers of the *Revue de thérapeutique medico-chirurgicale* has already been called to the investigations made with Eucaïne by Vinci in Professor Liebreich's laboratory. When Vinci's results were communicated to the Hufeland Society in Berlin on 16th April, we were already engaged in an extensive clinical examination of the new anæsthetic. Vinci's research deals with the action of Eucaïne in ophthalmic operations, and we have also only employed the anæsthetic in cases falling into this department. It has, however, been deemed advisable to make the following publication, because in many points we have not obtained exactly the same results as Vinci. The differences are mostly in matters of detail certainly, but in ophthalmic practice the smallest details must not be overlooked.

Eucaïne is the methyl ester of bensoyl-methyl-tetramethyloxypiperidine-carboxylic acid. It differs from the cocaine prepared in an analogous manner by one methyl group which replaces the hydrogen atom in the imide group of the latter.

Eucaïne, like cocaine, is only slightly soluble in water, but the neutral salts formed by combination with acids are soluble. The hydrochloric acid salt of Eucaïne appears in two forms. One modification crystallises from water in small shining plates, which contain a

molecule of water of crystallisation, and possess the composition expressed by the formula $C_{19}H_{27}NO_4 \cdot HCl \cdot H_2O$. This salt dissolves in water at the ordinary temperature to the extent of 6 per cent. The second modification crystallises from a solution in methyl alcohol in shining prisms, which contain two molecules of methyl alcohol in crystallised form.

These differences have been emphasised because they possess a clinical interest. The presence of methyl alcohol in the prismatic crystals gives to Eucaine an apparent irritant action, and makes this monification of the salt unsuitable for employment in ophthalmology. Eucaine hydrochloride crystallised in the form of small plates should therefore alone be used, at any rate in ophthalmic practice.

The physiological experiments made by Vinci demonstrated that small doses of Eucaine suffice to increase the reflex excitability in mice and rabbits. Doses of about one third of a gram per kilo body weight induce tonic and clonic convulsions. If the dose is increased, symptoms of paralysis appear under which the animal eventually dies. If the animal, however, resist the dose, the paralysis following upon the convulsions at length totally disappears. A few experiments will show that these symptoms take their origin in disturbances of the central nervous system, but to enter into details would lead us too far away from our subject.

Altogether it is recognised that the physiological action of Eucaine is analogous to that of cocaine, but that the latter, as determined by comparative experiments, possesses a greater degree of toxicity. Eucaine slows the pulse considerably, while cocaine makes it more rapid. As regards the duration and intensity of the anæsthesia Vinci has found that both substances are practically identical. There exists one important difference, however, which we have studied more closely in consideration of its importance in ophthalmic practice. Cocaine induces ischæmia, whilst Eucaine increases the vascular blood pressure; moreover careful examination of the results obtained by the instillation of Eucaine solution into the conjunctiva proves that the pupils are not at all affected.

These points are important, and are eminently in favour of Eucaine, as cocaine

induces mydriasis and disturbances of the accommodation.

In our clinical trials, which we believe to be the first made in France with the new drug, we employed 1 and 2 per cent. solutions of the plate modification of Eucaine hydrochloride. From the very commencement we noted slight differences in our results from those of Vinci. For instance, one drop of the 2 per cent. solution dropped upon the conjunctiva caused a more pronounced burning sensation than the instillation of a solution of cocaine of like strength. Vinci only observed these symptoms of irritation when using Eucaine hydrochloride containing methyl alcohol in the crystals.

Fortunately, this irritant action, always unpleasant to the patient, can easily be avoided in the case of Eucaine by a slight modification of the treatment. Instead of commencing at once with a 2 per cent. solution, a drop of 1 per cent. Eucaine solution is first instilled; this drop causes no irritation and suffices to annul the sensibility of the conjunctiva in about three minutes. A drop of 2 per cent. Eucaine solution is then added, and now no sensation of pain is at all experienced. Generally in about 2½ minutes after this second instillation complete anæsthesia of the conjunctiva and cornea is set up and continues on an average for 10 to 18 minutes. There exists also a very remarkable difference in the kinds of sensibility, of which Vinci makes no mention. Sensibility towards the contact of foreign substances is first of all suspended; thermal sensibility withstands the action of Eucaine longer, but finally, in course of time, is likewise completely suspended. A similar experience has already been noted by us with cocaine (*Société de Biologie*, 1893).

We are quite in accord with Vinci as to the equality of the anæsthesia produced by cocaine and Eucaine, both as regards permanency and intensity. We have made comparative trials on both eyes in the same patients, and have come to the conclusion that the small differences sometimes observed are due rather to the unequal volume of the drops instilled. When operating with such small quantities of an active substance, it is always very difficult to maintain the experimental condition in each case absolutely similar.

Anæsthesia progresses from the point where the drop falls upon the mucous

membrane, and at this point it also lasts longest. According to Vinci, anæsthesia is first developed in the cornea.

An accompanying symptom of the anæsthesia produced with Eucaine is the development of hyperæmia in the eye treated, which extends over the whole of the conjunctiva, and persists longer than the anæsthesia. In all our observations it had, however, disappeared in 30 minutes at the most after instillation. Moreover, a hyper-secretion of the lachrymal gland was noted in the eye treated with Eucaine. On these points our observations stand considerably at variance with those of Vinci, who obtained with the Eucaine crystallised in plate form "a very slight, scarcely perceptible hyperæmia"; the hyperæmia developed only when Eucaine containing methyl alcohol was employed. It is doubtful what is the origin of these differences, as in both cases the "plate" modification of Eucaine hydrochloride was employed.

Like Vinci, we have never observed the slightest widening of the pupil nor the least disturbance of the accommodation when Eucaine is injected into the eye. In this respect, it may be remembered that some time ago (*Société de Biologie*, 14th January 1893) we suggested the avoidance of cocaine by these important drawbacks to its combination with pilocarpine.

In the eye anæsthesised with Eucaine we have moreover never observed the disturbances of the cornea experienced with cocaine, due to the desiccation of the cornea, which is evidenced by the loosening of the cells upon the surface of the corneal epithelium. These succulent protoplasmic cells under the influence of cocaine exhibit fissures which, in case the conjunctiva is infected, afford entrance for pus microbes. A fact that appears in favour of this hypothesis is the increased tendency to the formation of corneal ulcers in the employment of cautery for cases of blennorrhagic conjunctivitis, if before cauterisation anæsthesia with cocaine is effected.

From the foregoing it is evident that the new preparation deserves to a very considerable degree the attention of eye specialists. Absence of mydriasis and of corneal disturbances is from a clinical point of view of the greatest importance, and should lead to the employment of Eucaine in all those cases—and they are very numerous—where the above men-

tioned two drawbacks of cocaine may have serious consequences.

The congestion of the conjunctiva produced by Eucaine is undoubtedly a disadvantage, yet apart from the fact that Vinci considered the hyperæmia scarcely worthy of notice, we have never observed any noteworthy symptoms as sequelæ of the congestion. Our operative measures after production of anæsthesia with Eucaine have been both numerous and varied. We have employed it prior to cautery with silver nitrate, copper sulphate pencils, or with copper aluminate (*lapis divinus*), for extraction of foreign substances from the cornea; before passing Bowman's catheter; in surgical operations, and in operations for chalazion. We even incline to the opinion that in a case of punctate keratitis combined with iritis, the hyperæmia of the conjunctiva had a favourable effect. It is possible that this hyperæmia influences the lymphatic flow in a manner analogous to massage, but we only express this scarcely formed opinion with the greatest reserve.

For most of our present purposes we employ, moreover, a combination of cocaine and Eucaine in the following proportions:

Cocaine hydrochloride.....	4 grains.
Eucaine ".....	4 "
Boiled distilled water.....	1 ounce.

The vascular contractile action of cocaine which, according to Mellinger, retards the healing of wounds of the cornea and of affections of the anterior parts of the eyes, is counteracted by the vascular extension action of Eucaine, and whilst the anæsthetic action of both preparations is cumulative, the action of cocaine upon the pupils and accommodation is diminished by one-half.

By injection beneath the skin Eucaine in 2 per cent. solution gives the same results as cocaine, without however, producing those cases of syncope which are sometimes experienced with cocaine. Previously we have recommended a combination of caffeine with cocaine for hypodermic injections.

In conclusion we would repeat, that Eucaine is an anæsthetic of great value, which may be recommended to the attention of every practitioner. The combination with cocaine which we have suggested for ophthalmic purposes, appears to us a convenient type which makes it possible to take advantage of the

special qualities of both substances, and at the same time to minimise their defects. As Vinci has demonstrated, Eucaïne solutions are absolutely permanent, and may be sterilised by heat without fear of decomposition. With cocaine this is not the case (*Revue de thérapeutique médico-chirurgicale*).

Casts of the Uriniferous Tubules.

To the August number of "The Buffalo Medical Journal," Dr. Thos. B. Carpenter, Buffalo, N. Y., contributes an original article entitled "Casts of the Uriniferous Tubules."

Thirteen varieties are described, viz.: hyaline, fine granular, coarse granular, brown granular, epithelial, blood, fibrinous, fatty, waxy, crystalline, bacterial and purulent. The writer insists on accurate differentiation of varieties as a means of accurately diagnosing the pathological condition existing.

The active hyperæmia will be found hyaline and fine granular with an occasional blood and epithelial cast. If severe a few fibrinous and brown granular casts may be found. Associated with these casts are free blood and renal cells.

In passive hyperæmia, the writer rarely finds more than a few hyaline and fine granular casts.

In acute parenchymatous nephritis, in the early stages, are found blood, epithelial, brown granular, fibrinous and rarely hyaline and fine granular casts. Associated are much blood, leucocytes and renal cells. As the case progresses fatty elements appear: fatty casts, fatty renal cells and compound granule cells. The writer states that "appearance of fatty elements means beginning of convalescence, and the patient will probably recover."

In chronic parenchymatous nephritis (active stage), are found hyaline, granular, fatty and fatty epithelial casts associated with free fat, fatty renal cells and compound granule cells. In the inactive stage (patient better and at work), the sediment decreases in amount. If life is prolonged until atrophy of kidneys take place the amount of sediment may be very slight. If at any time waxy casts appear it means a speedy fatal termination.

In amyloid disease, a few hyaline and fine granular casts appear with a few renal

cells. Waxy casts may appear early and do not have the same significance as in chronic parenchymatous disease.

In chronic interstitial nephritis the same sediment is found as in amyloid disease, except waxy casts which do not appear until late, if at all.

The centrifuge is recommended for sedimentation, but in lieu of this apparatus, a clean glass with parallel sides will do. Six hours is usually a sufficient time for this.

The writer says, "a great deal of the success depends on the manner of using pipette." It should be drawn out long and at orifice about 1.5 m. m. diameter. It should be "introduced into fluid with the index finger pressed firmly over the top and lowered until sediment is reached, then rotate the pipette, allowing sediment to flow in slowly," thus getting as much sediment as possible in proportion to fluid. For examination an amplification of 350 diameters is recommended.

The worker is cautioned against mistaking threads of mucous for hyaline casts. The mucous casts, so-called, do not come from the kidneys, are pointed at one or both ends, usually very long and have a fibrillated appearance.

Fretting.

This condition is not confined to the women by any means, but extends to the men as well, even business men being sometimes afflicted with it; but this is the exception, and not the rule. After all, what good does fretting do? It only increases with indulgence, like anger, or appetite, or love, or any other human impulse. It deranges the temper, excites unpleasant feelings towards everybody, and confuses the mind. It affects the whole person, unfits one for the proper completion of the work whose trifling interruption or disturbance started the fretful fit. Granted that things go wrong to-day, the to-morrows are coming in which to try again, and the thing is not worth clouding your own spirit and depressing those around you, injuring yourself and them physically—for the mind affects the body—and for such a trifle. It is far better to strive to cultivate a spirit of patience, and this step will never be regretted, for it will not only add to your own happiness, but the example of your

conduct will affect those with whom you associate and in whom you are interested. Suppose somebody does make a mistake, suppose you are crossed or a trifling accident occurs, to fly into a fretful mood will not mend things, but, on the contrary helps to hinder the attainment of what you wish. Then when a thing is beyond repair, waste no useless regret over it, and do no idle fretting. Strive for that serenity of spirit that will enable you to make the best of all things. This means contentment in its truest sense, and contentment is the only true happiness of life.

New Discoveries in Acute Delirium.

The Medical Record, August 1st, has an original article on the discovery of bacteria in the cerebro-spinal fluid of a case of Acute Delirium, by Warren L. Babcock of the Medical staff of the St. Lawrence State Hospital at Ogdensburg.

His studies in acute delirium have been confined to an effort to determine the alleged bacterial nature of the disease. Upon looking up the literature of this part of the subject, the array of evidence in favor of a germ origin for any form of the disease is very meagre, and, on first reflection, hopelessly conflicting. A number of germs have been found in the cerebro-spinal fluid of these cases post mortem but no one germ can be said to be at all constant.

He reports a case of acute peri-encephalitis that was under his care throughout its entire course in the acute receiving-wards of the St. Lawrence State Hospital. On the twenty-ninth day lumbar puncture was performed for the relief of intracranial pressure symptoms, and the fluid was saved for clinical and bacteriological analysis. The micrococcus pneumoniae croupasæ and the streptococcus pyogenes were found on examination. Death occurred on the forty-sixth day and an autopsy was fortunately produced which is reported in full.

AUTOPSY (sixteen hours after death).—The following are abstracted from the autopsy record: "Body greatly emaciated. Brain found bulging and membranes tense, but only a moderate amount of fluid drained off. Tension due to the swollen condition of the cortex. Pia and arachnoid inflamed; frontal half of membranes cloudy and opaque, presenting

evidence of extension of the inflammation from the frontal to the temporo-sphenoidal and thence to the occipital lobes, the inflamed area of the latter being apparently of very recent origin. The vessels of the pia were highly injected and the pia over the cerebellum was mildly inflamed. The entire cerebrum was soft and swollen, and the cortex was infiltrated with inflammatory products, thus presenting evidence of acute encephalitis. Minute punctate hemorrhages appeared on the surface of the convolutions from which the pia was stripped. The superficial layer of the cortex tore up in flakes on removal of the pia. The temporo-sphenoidal lobes were softened and the frontal lobes were adherent to each other for a short distance anterior to the corpus callosum. The olfactory bulbs were soft and atrophic; the choroid plexus was cystic; the ventricles were greatly dilated, and their walls were softened and infiltrated with serum. The meninges of the cord and nerve sheaths of both anterior and posterior roots were inflamed throughout.

Smears from the lungs showed broken-down epithelial cells, shreds of lung tissue, red blood corpuscles, and much granular matter. Blood smears from the spleen, strained by Gram's method, revealed the micrococci pneumoniae in great numbers. They occurred singly and in pairs, and were not accompanied by the streptococci which were found in such abundance in the cerebro-spinal fluid from the second puncture. The red cells were granular and in various conditions of transitional change. The leucocytes were normal in contour, increased in number, and some contained within themselves one or more cocci.

BACTERIOLOGICAL EXAMINATION.—Many precautions were taken in collecting the fluid during both lumbar punctures so as to exclude all possibility of contaminating it with extraneous germs. The needle, tube, and glass receptacle were previously sterilized by steam; the fluid was kept at the body temperature by means of hot moist packing about the tube and graduate, and the latter was kept covered with sterilized gauze. As soon as twelve cubic centimetres were collected, that amount was transferred to a sterilized precipitating tube and the latter was plugged with sterilized cotton. The liquid, after standing twelve hours, was placed in a centrifugal machine and its

suspended solids were precipitated. After precipitation the supernatant fluid was drained off and the flocculent precipitate was stained by Gram's method and mounted in balsam. This method of precipitation and staining, with the exception of keeping the temperature of the fluid at 100° F., was carried out after the second puncture. On examination of the slides prepared from the fluid of the first puncture, large numbers of the micrococcus pneumoniae crouposæ were found, together with an occasional streptococcus pyogenes. Slides from the fluid of the second puncture revealed an increased number of both germs, particularly the streptococcus. Pus cells were numerous in each field examined from the fluid of the second puncture.

As the writer had no facilities for making cultures of the germ, an attempt was made to demonstrate its specific nature by the inoculation of rabbits. Two were inoculated from fluid of the first puncture, as follows: The aseptic precaution described above were supplemented by the use of a sterilized hypodermic needle, and the fluid was kept at a temperature of 100° F. until injected subcutaneously into buttocks of rabbit. Two cubic centimetres were injected into each rabbit. At the end of twenty-four hours both had an elevation of temperature of little more than a degree, and manifested symptoms of a mild septicæmic infection. At the end of forty-eight hours their temperature was still elevated and they were eating poorly. Twenty-four hours later they seemed to have regained their usual condition.

Three rabbits were inoculated with fluid from the second puncture in the manner described above. At the end of twenty-four hours two of them gave evidence of an intense infection, while the third gave birth to eight young, evidently premature. Of the young two died, while the mother manifested no further evidence of infection. The two remaining rabbits were greatly prostrated; their temperature ranged from 103.8° to 105.2° F. (normal rabbit temperature, 103.1° F.); they refused to eat and lost weight rapidly. At the end of forty-eight hours one appeared to be dying, but both recovered after a few days. An examination of the blood of these rabbits revealed the same germ that was found in the spinal exudate,

which here occurred both singly and in pairs.

The microscopical appearance of the germ found in the spinal fluid and the blood of the inoculated rabbits exactly corresponds to that of the micrococcus pneumoniae crouposæ or micrococcus Pasteuri (Sternberg). Its virulence upon the rabbits, however, appeared much less than that of germs from pneumonic sputum, as the animals usually die when inoculated with the latter. It is assumed, therefore, that the germs injected had from some cause or other become attenuated. The subject needs further investigation by reinoculation and culture experiments with the fluid obtained by puncture before the identity of the germ can be established. The above notes are only offered as an incentive to more thorough work in suspected cases of bacterial periccephalitis.

The features of particular interest presented in this case are:

First, the temporary relief of the cerebral symptoms and improvement in the patient's condition following lumbar puncture.

Second, the finding of a germ, probably the micrococcus pneumoniae crouposæ in the cerebro-spinal fluid obtained during life.

Third, the protraction of the delirium and the unusual length of the disease (forty-six days).

Fistula in Ano.

The July number of the Physician and Surgeon contains an article upon "Fistula in Ano" by Dr. William F. Metcalf, of Detroit, Michigan. Upon the treatment of external fistulæ and of those opening into the lowest third of the rectum, the writer says:

The two objects to be obtained are complete obliteration of the sinus and the correction of all other forms of rectal pathology that fistulæ may not recur. The method of procedure must vary with each particular case, the guiding principles being: 1—Antisepsis; 2—Free drainage where required; 3—Rest; 4—Ligation of the bleeding vessels only, since crushing of tissues impair their nutrition and reflexly may disturb various organs; 5—Avoidance of granulating wounds when possible, as cicatrix may

impair the function of the rectum, and requires much time for its formation, which means a slow convalescence. External rectal sinuses I dilate with sounds, curette away the pyogenic membrane, apply a 50 per ct. solution of carbolic acid in Churchill's tincture of iodine and pack with gauze or dissect away the pyogenic membrane and close from the bottom with sutures. If the suppuration extend through the muscular coat of the rectum to the mucaus membrane, I treat it as a complete fistula.

Into internal rectal sinuses I pass a bent probe and incise skin upon its point, thus converting them into complete fistulæ, and treat them as such.

In complete fistulæ a probe should be passed through the main fistulous tract and its point drawn out through the anus and twisted around the handle. The whole circumference of the rectum should be examined for other abnormalities. If a strip of healthy membrane upon the side opposite to the fistula be found and no very great redundancy of mucus membrane exists, the following procedure should be at once adopted: All inflamed pockets, ulcerated patches, hemorrhoids and papillæ should be removed with scissors, leaving unwounded the portion of membrane beneath which you intend to make section of the sphincters. This is easily accomplished by incising the skin at the outer margin of the external spincter, and passing through this incision and outside of the sphincter muscle a probe pointed bistoury to the upper margin of the internal sphincter. The cutting edge of the bistoury is then turned toward and at right angles to the muscles which are severed as the knife is withdrawn, its probe point impinging upon the index finger of the other hand passed into the rectum and pressing upon the membrane overlying the point of section. If fear is had of wounding this strip of membrane, a director may be passed between it and the muscles to be severed. The skin wound should now be closed by one absorbable stitch and sealed with colodion.

The bistoury should now be passed through the fistula, by the aid of a director, if necessary, and the tract laid open as in the ordinary operation. The assistants now hold the wound open with T-forceps while the operator with tenacula forceps and scissors dissects out the pus-

producing membrane. Pouches from the main tract should be dissected out in the same way. The wound should now be washed with 1-4000 bichloride of mercury solution and closed from the bottom with kangaroo tendon, the skin edges accurately coapted and sealed with collodion. A pad of iodoform gauze held firmly against the anus with a T-bandage completes the operation.

In cases where there are numerous sinuses, the membrane of which cannot all be dissected away, the main tract should be treated as above described, the other sinuses dilated and curetted and treated as external ones.

If after passing the probe through the fistula we find that the membrane covering the whole circumference of the rectum is abnormal or redundant, the sphincters should be dilated thoroughly, the membrane grasped with T forceps at the upper border of the diseased portion and amputated at this line. Dissection should then be made downward beneath the amputated portion to the skin margin where it is cut off. Incision should be then made through the fistula tract, outside of and parallel to the syhincters as deep as the fistula extends. The wound is then held open—the pyogenic membrane removed, and the incision closed as above described. The rectal membrane is now pulled down, its longitudinal fibres cut to prevent its being drawn upwards, and stitched to the skin margin, and a dry dressing applied. In this operation the internal opening is covered by healthy mucus membrane, all the diseased membrane being removed. The sphincters are not cut, an important point in those cases in which we have reason to fear non-union. Where animal tendon is used as stitches, it should be buried. If it passes through the skin or mucus membrane in this region it is liable to infection. In such cases silk-worm gut is to be preferred.

Diagnosis of Mild Typhoid Fever.

In the Canadian Practitioner of August Dr. Crincksbank, of Windsor, discusses the diagnosis of mild typhoid fevers. The claims for the eliminative treatment made by Thisble, of Toronto, and afterwards by Woodbridge and others, are so startling that it must be concluded that this plan opens a new era, or that there is something wrong with diagnosis.

The essayist discusses an outbreak of fevers occurring nine days after an accident which emptied the contents of an immense manure tank into the water supply. There were about 200 cases, some of a few days, many of several months—most of three week's duration—all due to the same cause and likely the same disease.

While not claiming that typhoid can be aborted, or that it cannot, he asserts that it does often abort of itself, much oftener than is suspected. The variation in symptoms is due to the fact that the typhoid bacillus becomes allied with an endless variety of germs and their toxins. Malarial typhoid could hardly be mild and the malarial parasite is easily made out, but mild typhoid and gastritis are often indistinguishable, yet in these cases Eberth's diazo-reaction is a usual diagnostic of typhoid. The absence of Eberth's bacillus in the feces or spots is not conclusive.

The paper concludes that a series of cases may occur—seldom seen in hospitals—so mild that a claim of 100 or 200 cases without a death would not be extravagant, nor would it indicate an unusually good plan of treatment.

Modern Methods of Treatment of Typhoid Fever Critically Reviewed, with Suggestions for a Rational Therapeutics.

Under this title Dr. Gustavus Blech, of Detroit, Mich., in the *Journal of the American Medical Association*, (August 8th, 1896, Vol. XXVII, No. 6,) contributes an elaborate article, in which the principal modern methods of treatment are considered and concluded by a resume of the writer's experience.

His ably written article is headed by a motto from Hyrte's text-book of anatomy, which words, translated into English, would be something like this. To the recognition and curing of disease, lies the mission of medicine. The recognition alone is science—the treatment was until now empiric and will remain so for quite a while. The principal value of all scientific research, the author says, lies in the recognition of this malady and its pathology—not in its therapeutics. Infallible methods of treatment exist only in the minds of the prospective discov-

ers (?), whose discoveries amount to no more than that of a new vaginal speculum, on which a screw or handle has been altered. Typhoid Fever patients get well without any treatment, and die under the best of care and under the most scientific treatment.

Balneo- and hydrotherapy stand ahead of all other therapeutic measures. The grave "status typhosus" is not observed in patients who are subject to a rigid hydrotherapeutics. Where the cold bath is objected to, lukewarm, warm and even hot baths can be substituted.

But in all cases sponging with an aqueous solution of alcohol should be practiced.

The writer then analyzes the abortive treatment, especially the Woodbridge method. Dr. Woodbridge is charged with not adhering to facts in his reports, and with gross negligence in his treatment. Dr. Woodbridge considers the restriction of diet and rest as something unnecessary when his treatment is carried out, and the author uses strong language against such assertions. Woodbridge's medicines are good intestinal antiseptics, but they are neither new, nor is Dr. W. original in using them in typhoid fever. They are combinations like listerine, borine pasteurine, etc. They ought to be put up in soft elastic capsules, instead of tablets. The report of cases sent in, which were treated by the Woodbridge method show no exactness, and are not satisfactory from a scientific standpoint. Two cases are cited which must cause amusement.

Then the antiseptic treatment is considered. The writer has given this subject very much thought, and his philosophical deductions are well worth considering. He does not believe in the theory that antiseptics destroy the toxins formed by the germs. Certain microbial diseases yield to time-honored remedies (specifics) better than to antiseptics. Just as in surgery toxic chemicals are no more employed—in internal medicine the present fad for killing the germs through general counter intoxication, will have to give place to a less serious medication.

The hygienic and dietetic treatment are essential part of the general management. But a part only—it would be too much risked to rely on this treatment solely. Nutrition is the key-note. Mellin's food is recommended as an adjuvant to milk,

as it converts the casein of the milk into soluble albuminates, improves digestion, and renders cow's milk more nutritious. Plenty of pure water internally (acidulated with hydrochloric acid, lemon or hydrozone, alcohol to be commenced with early), beef extracts, beef juice, beer, coffee, etc., are recommended.

The author then proceeds to describe his method of rational treatment, which he says is far from being infallible, but will recommend itself to the thinking physician.

He divides the disease into three stages,

1. The time when the disease is suspected only.
2. From the making of a diagnosis until convalescence.
3. Convalescence plus two weeks.

The treatment in the first stage necessarily must be symptomatic. To produce diaphoresis, diuresis and catharsis is rational.

In the second stage, everything must be done systematically. Outline hygienic and dietetic treatment for the entire course.

The first two days are given

R	Calomel.....	gr. iiii
	Salolis.....	3 ss
	Six powders,	one t. i. d.

The bowels should be irrigated twice daily with water, to which hydrozone is added.

The author lays great stress on the internal administration of this remedy, as it oxygenates the blood, tones the brain, improves digestion, checks abnormal fermentation, stimulates exertion, mechanically it disinfects the gastro-intestinal tract, allays the hyperæmia and prevents ulceration.

A metal sigmoid flexure irrigator, manufactured by Messrs. Halsey Bros., of Chicago, is recommended for irrigation.

The author concludes his paper with the words: It is intended to cause the general practitioner to think, not to copy formulæ.

Gouty Diseases of the Heart.

Schott says that in pure and not advanced gouty affections of the heart the prognosis as regards life is favourable, but in severe cases, with anatomical changes, it is doubtful and mostly bad, but even here something can be done to prolong life. In predisposed individuals

overexertion as well as too great inactivity must be avoided. A mixed diet is best suited to these cases. Stimulants should be avoided; light Rhine wines are the least harmful. A sufficient exercise in the open air is necessary. The use of salicylates, antipyrin, antifebrin for pains requires caution. The author has had unpleasant experiences with colchicum. Piperazine has not in the author's experience proved of much service. Lithia salts are best avoided owing to their irritating action on the alimentary canal. The various potassium salts, owing to their toxic action on the heart, should be very cautiously used. Opium should be given as little as possible. Digitalis and also strophanthus are to be preferred to all other cardiac tonics. The author discusses the value of the mineral waters. Slight alkaline waters, such as those of Offenbach, Obersalzbrunner, Nauheim, etc., are of greater service than the stronger so called gout waters. Hydrotherapy can only be used in the shape of warm packs in the treatment of pain. General massage may be of service, especially when the patient is confined to bed owing to an attack of gout, etc. Gymnastic exercises can only be of use by increasing metabolism. As regards climate moderately high altitudes are better than low-lying places; in the sunnier mid-European places, with their moderate warmth; and in the winter South Italy, Algiers, or Egypt are suitable. Cold and especially damp climates must be avoided. As regards baths the author warns against trying to call forth the attack of gout by baths; he has only seen an unfavourable action exercised on the heart and kidneys by such measures. A considerable part of the success of health resorts lies in the withdrawing of patients from home troubles, and in their living a more rational life.

Cholera Vibrios in Sewage and Filter Beds.

Stutzer (Edinburgh Medical Journal) gives the results of experiments made by him at the sewage filter beds of Berlin on the question whether cholera vibrios may reach the filter beds in the sewage of towns, and especially how are they affected by the soil of the filter beds. The author had previously shown that cholera vibrios long remain capable of growth in

a fluid which contains a small quantity of carbonate of ammonia, whence the possibility arose that they might remain capable of growth in Berlin sewage, which contains carbonate of ammonia from the decomposition of urea, unless their existence were destroyed by growth of other micro-organisms. On examination of the canal water of Cologne he found that cholera vibrios remained alive therein for eight days, and that though the discharge of sewage into the canal is officially prohibited. At the beginning of March, 1893, the author personally investigated the condition of two irrigation beds, one of which had been left untouched for fourteen days. He took specimens of earth (*a*) from a depth of $\frac{1}{4}$ metre, (*b*) from a depth of $\frac{1}{4}$ to $\frac{1}{2}$ metre, (*c*) from a depth of $\frac{1}{2}$ to $\frac{3}{4}$ metre, and in the research he investigated whether the vibrios, after being mixed with the earth, could live longer. He further investigated the effect of the presence of diluted urine in the soil. The earth was taken into sterile flasks and mixed with a weak solution of peptone. Into this was placed a portion of a twenty-four hours' old culture of cholera on agar, and every twenty-four hours portions of this mixture were removed by a sterile pipette, and inoculated into peptone solution. The author found that in ordinary earth the vibrios can live some long time (six days), and it is immaterial from what depth the earth was removed, and whether diluted urine be present or no. Earth from the irrigation bed which had been untouched for fourteen days did not affect the growth of the vibrios, but if dilute urine was added the vibrios only lived for one day in the earth that had been obtained from a depth of $\frac{1}{2}$ to $\frac{3}{4}$ metre. This is due to the porous nature of the upper layers of the Berlin beds whereby the growth of bacteria inimical to the cholera vibrio in the urine containing earth is prevented from manifesting itself until the deeper layers are reached. The conclusion to which Stutzer comes is that the water of a town containing sewage in which faecal material, urine, etc., is present rapidly destroys the vitality of cholera vibrios, and, on the other hand, that the danger of a spreading of cholera by canal water or sewage in which no faecal material or only a very small quantity is present is much greater.

Intestinal Lithiasis.

Odds describes (Lancet) a case of a woman, aged 50, with a gouty and neurotic family history and subject to rheumatic and neuralgic pains and obstinate urticaria, had all her life suffered from sudden attacks of intestinal pain, which comes on suddenly and without any adequate cause and passed off with an abundant evacuation of the bowels. The pain occupied the whole of the abdomen, but without any point of maximum intensity. The stools accompanying these crises were composed first of all of hard faeces, then of soft material, and finally the patient experienced a sensation as if earth was passing from the anus. The attacks lasted from eighteen to twenty-four hours, but between them a certain amount of intestinal sand was passed. These intestinal concretions resembled gravel in appearance, and were of a yellow or blackish grey colour. They were combustible, and on analysis contained animal debris (65 per cent.), fat (25 per cent.), carbonate and phosphate of lime, ammonio-magnesium, phosphate, and mucus. There was no cholesterol or other constituent of the bile. The attacks of pain appeared to be set up by the passage of the concretions. Bismuth or other drugs tending to diminish the size of the motions, prolonged the crises, while, on the other hand, drinking large quantities of water shortened the attacks. No connection between the attacks and various kinds of food, alkaline treatment or rheumatic attacks could be made out. It is not stated whether the patient took much fatty or oily food. Benzo-naphthol had an ameliorating effect. Jolting or shaking brought on attacks, and the author thinks that the concretions accumulated in the caecum were thus transferred to the colon. The caecum was enlarged and tender. The patient occasionally passed membranous casts of the bowel such as occur in membranous enteritis. The author considers that the affection is not dependent on any diathesis, but is due to a lithogenic catarrh of the intestines, and that in this case it is associated with chronic appendicitis. The condition most likely to be mistaken for intestinal lithiasis is biliary lithiasis. It may be added that Delépine has described cases in which pear seeds, fig seeds, and fat crystals derived from olive oil

were passed *per rectum* and might have been thought to be biliary sand.

Pieffer's Test of the Diagnosis of Typhoid Fever.

M. Rendu has in his hospital practice at the Necker Hospital confirmed the utility of the Pieffer test in the diagnosis of typhoid fever. A patient in his wards presented all the symptoms of typhoid fever except diarrhoea and petechiae. M. Rendu, admitting the possibility of typhoid fever, treated the patient with cold baths. Some serum from the patient, obtained by an incision, was introduced into two tubes; one contained a cultivation of Eberth's bacillus, the other a cultivation of the bacillus coli. The result was negative. Both cultivations continued to develop. Thus it was demonstrated that the patient was not suffering from typhoid fever, and she was not refused the food she wished for. M. Widal has collected several similar cases in M. Debove's service. In one case all the symptoms were present, with a loud cardiac murmur suggesting infectious endocarditis. The Pieffer was soon after confirmed by the appearance of the rash, M. Dieulafoy has also read before the Académie de Médecine notes confirming the utility of this means of diagnosis.

Getting Better Results Each Day.

Gentlemen :—You ask me my experience with Pineoline. Well, here it is. Pineoline does the work every time in skin diseases such as acne, barber's itch, herpes, eczema, etc. It is simply a specific. I have used it in the skin clinic in the hospital, where we treat hundreds of cases each month, and know just what to expect. In erysipelas it is a remedy par excellence. I have also given pineoline a good trial in catarrh and hemorrhoids with good success. Pineoline is a wonderfully good thing, Almost every day I find some new use for it. The other day I prescribed it for granulated eyelids, and even in this case it is doing good work. You have given the medical profession a really good medicine in Pineoline.

Yours truly,

ROBERT DE HUFF, M. D.

Operations for Hemorrhoids.

The following method for rendering the rectum as aseptic as possible has been recommended by Thénenard. Milk diet for six days before operation, with purgation. On the two days preceding the operation a copious enema of boracic acid should be given, but not on the morning of the operation. Three 8-grain doses B. naphthol, with an equal quantity of bismuth, should be given daily. Both the skin around the anus (after shaving) and the interior of the lower end of the bowel (after dilatation of the sphincter) should be well cleansed. Iodoform gauze is loosely packed into the rectum after the operation. Quènu operation for piles differs from Whitehead's, in that the mucous membrane of the lower end of the rectum is not removed but only dissected up from the subjacent tissue, and all the dilated veins found on its cut surface removed and also those in the submucous tissue from which it has been dissected. The mucous membrane is then replaced and stitched to the skin. A plug of gauze is inserted into the rectum in order to press the divided surfaces together.

Andrews as the result of extensive correspondence with European and American surgeons has collected 201 cases in which disaster followed Whitehead's operation, the most frequent being incontinence of flatus and fæces. He considers that it is most important to preserve the mucous membrane just above the sphincter, as on its integrity depends the ability of the nervous mechanism to control the contraction of the sphincter when faecal matter presses on this region. If it is removed all the "tactile" mechanism is destroyed, for it is contained in eight small papillæ surrounding the rectum just above the anus and in the columns of Morgagni, between the rectal pouches. He found that in many cases of Whitehead's operation there has been failure to secure union by first intention, and a circular ulcer has formed, ultimately resulting in stricture. He is strongly in favour of the clamp and cautery operation in preference to Whitehead's operation.

It is said that one-tenth grain of apomorphine, given hypodermically, will break up and thereafter prevent any attack of hysterics.

Aseptic Technique of Surgical Operations

At the meeting of the Southern Illinois Medical Association, held in East St. Louis, May 14th and 15th, Dr. H. C. Mitchell, of Carbondale, Ill., read a paper entitled Aseptic Technique of Surgical Operations.

The doctor states in the beginning of his paper that it was not his intention to give anything new, but to adapt it to the needs of the country surgeon; and shows the disadvantages under which they labor by being far removed from hospitals, trained nurses, &c., and briefly shows the value of asepsis and antisepsis, and the best methods of obtaining them. He touches on the "X Ray" and the important part it may play in the surgery of the future. He shows how the surgeon can always have all his instruments and dressings with him, by writing a list of all the principle operations and the instruments, dressings and assistants needed in such operations and keep the list in a conspicuous place in his office. Condemns the practice of carrying instruments in plush-lined cases, or anything that cannot be aseptified by boiling, and discards the use of all instruments that do not have aseptic handles. Shows how a Boeckman sterilizer may be converted into an ordinary trunk shaped box containing trays and apartments suitable for holding instruments, dressings, operating gowns, towels and instrument pans, in fact everything complete for the operation except anesthetic catgut, surgical pad that would be damaged by a boiling temperature. When snugly packed the sterilizer is placed inside the ordinary telescope or valise free from dust and dirt, and away from public gaze, so that the surgeon can proceed like any ordinary traveler.

On arriving at the place of operation the sterilizer containing the instruments, dressings, &c., is removed from the telescope and placed on any ordinary cooking stove, and by the time the patient is prepared for the operation, the entire outfit is sterilized and ready for use.

By the devise described by the doctor, the surgeon is saved much needless worry, his time is economized and he is enabled to operate safely in a perfectly aseptic manner, surrounded by dirt and filth, whereas it would be impossible for him

to operate safely under any other circumstances.

We certainly think the devise described by the doctor is a very good one, and would be a safe and valuable help to all surgeons going into the country to do an operation.

Alcoholic Drinks in Dyspepsia.

They should be forbidden, especially when we are convinced that their continued use has caused, and is keeping up the catarrh of the stomach.

Milk is justly regarded as the very best example of proper food in impaired digestion. However, the very fact that a patient soon gets tired and weary of drinking nothing but milk should prompt us to put him upon a modified milk diet. Instead of living entirely on sweet milk, he may mix his milk with barley or oat-gruel, and live upon this diet for several days. Some patients prefer beef tea for a change. Buttermilk also takes a proper rank in the scale of diets for dyspeptic people.

Fruits, such as apples and prunes, will keep the bowels in good order.

A plate of palatable rice soup for the dinner table, followed by a thin slice of juicy, tender roast beef, with potatoes, furnish an excellent and easily digested dinner meal. Also vegetable soup, lamb, fricasseed chicken and game, accompanied with sweet peas and potatoes, are very acceptable meals for a weak stomach at dinner time.

The brains of animals, such as calf and cow's brains, well cooked, are highly nutritious articles of food, easily digested, and are considered a mechanical stimulus to the digestive organs.

The fruits of leguminous plants, such as peas and lentils, with fish, and substitutes for meat. They are likewise a proper combination for the dinner table.

A slice of bran bread, with sweet apple-butter and one boiled egg, accompanied with a cup of tea or coffee, make up a splendid and easily digested supper.

Only, the patient must not forget that "man does not exist upon what he eats, but upon what he digests," and be careful not to partake of too many dishes at a time, and not too much of it.

Gonorrhœal epididymitis is relieved by sulfo-ichthyolate of ammonia and glycerine.

The Treatment of Puerperal Septicæmia.*

Puerperal Septicæmia is essentially a surgical disease caused by infection, of which there are various local manifestations. Generally it is primarily an endometritis with secondary involvement of the tubes, lymphatics and peritoneum. But there is also in the blood an antitoxic element or power which enables the system to successfully combat moderate amount of poison. The two indications therefore are,

(1) To remove or limit the source from which the toxic elements are supplied to the blood, and

(2) To aid nature to overcome the poison already in the system. To meet the first indication, surgery must be invoked, in whatever degree necessary, from uterine irrigation to total hysterectomy.

The first procedure is naturally intra-uterine douching, after which the cavity should be thoroughly wiped with a pledget of iodoform gauze, and lightly packed with the same. If the operator is accustomed to its use, the dull curette should be used at the same time. If the temperature again rises, the curette and antiseptic irrigation should be again tried. If notwithstanding this the symptoms of profound sepsis remain, we are imperatively called upon for more radical measures.

Then, in my opinion, nothing short of hysterectomy meets the indication.

The lymph spaces and tissues of the uterus are involved, or the disease has passed through the tubes to the peritoneum. In either cases removal of the infected tubes and uterus is demanded, in order that the source of supply shall be removed and thorough pelvic drainage established. When this has been accomplished we have done all that surgery can do, but are not yet at the limit of our resources.

The second indication, to aid nature to overcome the poison in the system by strengthening the antitoxic power of the blood, still exists.

Until recently medicine has given us no remedy of value in the treatment of septicæmia. Now we have two remedies

of proved value. The recently discovered anti-streptococcus serum has been used with the best results in poisoning by streptococci. Unfortunately puerperal sepsis is sometimes due to other poisons or combinations of poisons.

We have also nuclein, which I have used with marked benefit, and on the use of which Dr. Hofbauer of Vienna has recently written. His reasons for its use are

(1) The promptness of its influence on leucocytosis.

(2) The absence of unpleasant consequences.

(3) The fact that it can be administered internally and pass unchanged into the blood.

He also gives as among its most marked effects.

(1) The favorable influence on the patient's general condition.

(2) Equally good local effects. Rapid healing of lacerations and improvements in discharges from the uterus

(3) The beneficial influence on the temperature, there being a decided gradual reduction.

My observations correspond in all respects with his.

With the aid of these two remedies, surgery can accomplish more in the future in cases of puerperal septicæmia.

What I have aimed at in this article is to impress upon the minds of general practitioners,

(1) The importance of prompt intervention in all cases of puerperal sepsis.

(2) That early curettage and douching may save many.

(3) That when this fails after proper and thorough trial, hysterectomy is demanded; and

(4) That in nuclein and the anti-streptococcus serum we have two agents that are very valuable in this condition and properly used may prevent the necessity for the more radical surgical measures, or may aid surgery to save lives otherwise inevitably lost.

It has been recently found that most antiseptic ointments are of very slight value, the peculiar qualities of a disinfecting substance being nullified by the action of the oily material with which it is usually incorporated. Lanolin is one of the least objectionable of these substances.

*Abstract, Dr. Eugene Boise, Grand Rapids, Mch.

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JOHN CARLE & SONS, Wholesale Druggists, 153 Water Street, NEW YORK CITY, N. Y.

Bacteriological Diagnosis of Diphtheria.

Dr. Wyatt Johnston (Montreal Medical Journal, July, 1896.) reports the results of a year's experience in Montreal of the Bacteriological Diagnosis of Diphtheria. The number of samples of throat exudate examined was 998, of which 64 per cent. were primary examinations. Of these 56 per cent. gave positive, 33 per cent. negative, and 11 per cent. doubtful, results. Klebs-Hoeffler bacilli were present in pure culture in 43 per cent. of the genuine cases, and streptococci were associated with them in 28 per cent. Loefflers serum was employed as a culture medium, the mixture of serum and bouillon being preserved in self-sealing jars by the addition of one per cent. chloroform. After being coagulated in the tubes these were sealed with paraffin after placing tin foil over the stoppers, and in this way tubes could be preserved for some months without drying up or becoming contaminated. The swabs and tubes employed were similar to those used by the New York Board of Health.

A positive diagnosis could be made in over 90 per cent. of all cases of diphtheria when seen early. In some cases of diphtheritic croup the bacilli could not be detected in the early examinations, but appeared subsequently.

Virulent bacilli were detected in two of the cases four weeks after the throat was clear. It was not thought advisable to delay the preliminary dose of antitoxin in order to await the results of the bacteriological examination. The greatest value of the method was in enabling quarantine measures to be intelligently enforced.

Absence of the bacilli in the cultures, while not absolutely proving the disease to be non-diphtheritic, certainly showed that at the time of examination there was little or no chance of infection. In two cases there was apparently a reinfection and reappearance of the bacilli late in the disease.

The use of weak organic acids appeared to be the form of local treatment most adapted for hastening the disappearance of the bacilli during convalescence.

In Montreal, during 1895, in spite of the free use of antitoxin there had been a decided increase in the frequency of

diphtheria, and in the total number of deaths from diphtheria. This was possibly due to some extent to the fact that cases treated by antitoxin ran a milder course and were released from quarantine too early. The rigid enforcement of quarantine measures has become more necessary since the introduction of antitoxin.

Acne Due to General Waste.

By A. H. Ohmann-Dumesnil, A. M., M. D., Professor of Dermatology and Lymphology in the Marion-Sims College of Medicine of St. Louis, Consulting Dermatologist in the St. Louis City and Female Hospitals, Dermatologist to the Alexian Brothers' Hospital, Pius Hospital, Rebekah Hospital, etc., etc.; Editor St. Louis Medical and Surgical Journal, Quarterly Atlas of Dermatology, etc.

Mrs. B., a pale blond of twenty-six, came to me for a cachectic acne with which she had suffered for several years. Her nourishment appeared below par and she steadily and slowly decreased in weight, complaining of lassitude and a general feeling of being unable to get about as she should. She was given the regular treatment of acne which I am in the custom of using, but it did not seem to produce the desired effect. Deeming that an improvement in her nutrition and assimilation would exercise a beneficial effect upon her cutaneous trouble, I ordered the following:

Cord. ol. morrhuae Co. (Hagee)...xvi. ounces.

Sig. Tablespoonful after each meal and at night.

In one week she reported a net gain of four pounds and the eruption was in a better condition, so much so that the effect of the cordial was patent. From inquiry, I elicited the fact that the appetite had increased, assimilation was better and a general sense of comfort had replaced the bad feeling which had formerly prevailed. At the present date, three months after the inception of the treatment, my patient weighs 26 pounds more and is rid of her acne.

I have used Hagee's Cord. with uniform results, and it is without doubt one of the best reconstitutives now offered to the profession.

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DESCRIPTIVE LITERATURE UPON APPLICATION.

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Is Alcohol Essential in the Treatment of Disease?

The Medical and Surgical Reporter of July 18, 1896, contains a paper by Dr. S. N. Wiley, of Norristown, Pa., on the question, "Is Alcohol Essential in the Treatment of Disease?"

The writer says that from the length of time alcohol has been used as a medicine and the large amount used, it would seem that its physiological and therapeutic effects should have been definitely determined long ago, for alcohol in its various forms has been used for generations in every form of disease, functional and organic, from the stomach-ache of infancy to the failing strength of the nonagenarian. And yet there is much disagreement among those using it as to the indications for its use, and its therapeutic effects.

Some regard it as a stimulant and use it as such; while others claim it is never a stimulant, but always, in whatever dose, a depressant, and to be classed and used with its chemical relations, ether and chloroform.

The writer claims that alcohol is in no sense a stimulant, and that it is contradictory to give alcohol at the same time to the same patient with strychnia, digitalis, and caffeine, recognized stimulants.

He charges the profession with a failure to study the therapeutic effects of alcohol as they do those of other powerful drugs, and states that alcohol is too often given indiscriminately, unscientifically and unreasonably.

He quotes such authorities as Drs. Davis and Waugh of Chicago, Dr. French of Massachusetts, Dr. H. C. Wood of Philadelphia, Dr. Alonzo Bryan and others to prove that many diseases such as typhoid fever, pneumonia, diphtheria, as well as collapse, post-partum hemorrhages, etc., are being successfully treated every day without the use of alcohol in any form. He shows also that in a number of hospitals all forms of disease, both medical and surgical, are being successfully treated absolutely without the use of alcohol.

The writer claims that because of the careless, the indiscriminate and the unscientific use of alcohol by many physicians, and the failure on their part to teach and warn their patients and the public of the evil effects of this so-called drug, that such physicians are in great measure responsible for the drunkenness

of our times, which results in ill health, poverty, crime and wrecked intellects, and helps to fill our jails, alms-houses and institutions for the insane and feeble-minded.

In closing he calls upon all well meaning physicians, all who have the good of their fellow men at heart, to study this question of the medical uses of alcohol carefully, and if possible avoid the so constant use of a substance that is alike dangerous to health, to life and to immortality, of so many of our fellow men.

Doctor-Chemists—Their Responsibility.

In another column we print a letter from The Ammonol Chemical Co. They protest against an article by N. G. Eccles, M. D., which recently appeared in a New York Drug Journal. We have carefully read the article referred to, and find very little that is objectionable, in fact it looks as if the Chemical Co. had been putting up a shrewd advertising scheme and the Drug Journal had fallen into the trap. The Doctor, after stating that the Chemical Co. claim Ammonol to be Ammoniated-Phenylacetamide decides that it is Phenylacetamide and Ammonia and takes a whole page to arrive at this learned conclusion. He evidently thinks it a good medicine and advised the druggist to tell the doctors what it is. There is, however, a serious side to this subject; one that should be under more strict legal control. That an ignorant chemist should be allowed to attack useful industries without fear of the consequences, even in case his so called "analysis" are not only incorrect but the attack is inspired only by malice, is dangerous to business. Only too often these so called "analyses" are merely a means to extort money from the manufacturers, and the conspiracies which sometimes exists between publications and these "chemists" are a constant menace to legitimate business. There are few manufacturers who have not writhed under the irresponsible and wilfully false "analyses" of these so called "Analytical chemists." The Criminal Code should punish them in every case where a conspiracy to extort money can be proved. A few years in jail would cool the ardor of some of these doctor-chemists who desire to set the world right according to their own ideas.

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Traumatisms of the Eyeball.

In the Railway Surgeon for July 28, Dr. Cassius D. Wescott instructor in ophthalmology at Rush Medical College, has a brief but extremely practical paper under the above title. After calling attention to the great danger of infection and destruction of the globe in these cases, he says:

"In eye injuries we are obviously limited in our antiseptic measures because of the delicacy of the tissue involved; therefore, the greatest importance of absolute and invariable cleanliness. Sterilized water is as useful here as elsewhere and I believe that the addition of 3 per cent. of boric acid or 2 per cent. of borax makes it better, and such solutions are always more efficacious and agreeable if used warm. After scrubbing the patient's face with soap and water the injured eye should be thoroughly but very gently irrigated or repeatedly flooded with hot water or one of the solutions above mentioned. If the iris is involved in the wound and the injury is not more than six hours old we should endeavor to replace it by gentle manipulation with a small smooth spatula or other instrument. If unsuccessful we should seize the protruding portion, draw it out gently and cut it off. We will usually find after such an iridectomy, that the wound is clear, but if not we can usually make it so by careful use of the spatula. A few drops of a 1 per cent. solution of atropine solution should then be instilled, to guard against iritis and closure of the pupil, the wound dusted with finely powdered iodoform, a bandage applied and the patient put to bed. I do not believe that we should touch a prolapsed iris that is more than six hours old unless the injury has been properly dressed at once and we are reasonably sure that the wound has remained aseptic; under such circumstances we may safely open the wound in some cases, even after twelve or twenty-four hours."

He makes it a rule to enucleate every eye known to contain a foreign body which cannot be removed, and also advised immediate removal, or at least abscision and evisceration of the globe in cases of large wounds with extensive prolapse of the inner coats of the eye. He also advises the immediate excision of an eye in which the ciliary body has

been injured, even if some sight remains, unless the fellow eye is useless or has been removed. He advises against attempts to suture the sclera, but closes wounds in that membrane by careful approximation of the conjunctiva and episcleral connective tissue. He prefers kangaroo tendon as a suture material in all operations upon the eye.

Treatment of Venereal Lesions.

The value of iodine as a disinfectant was recognized long before the inauguration of the antiseptic era of the wound treatment. But it was not until this period that efforts were made to synthetically prepare substances, which when brought in contact with a wound surface would yield up their iodine in small amounts as to exert a constant germicidal action. Iodoform was the first iodine derivative brought before the profession and in many respects it has held its own. Of late, however, attention has been quite frequently drawn to the fact that this substance sometimes gives rise to irritant and even toxic effects. Aside from this its tell tale odor is objected to by many patients, and is equally objectionable to many physicians. The desirability of securing an iodine derivative devoid of these unpleasant properties, yet as efficient as iodoform, is, therefore, fully apparent. Europhen has been found by many competent observers to possess all the advantages of its malodorous rival, while completely free from its disadvantages. In the treatment of venereal diseases Europhen has proved to be of especial value. That extremely common affection, chancre, rapidly yields to its antiseptic and cicatrizing properties. If dusted on the sore after cleansing with a mild carbolyzed solution, healing progresses with great rapidity, and it will rarely be necessary to resort to the use of caustics. It has also been claimed that under its use buboes are seldom developed. If they form, however, and undergo suppuration, the application of europhen to the cavity after evacuation of pus and curittage (when required) will be found to induce rapid healing. For the treatment of other venereal lesions as ulcerating chancres, condylomata secondary and tertiary syphilis, Europhen has also show itself to be a very efficient and agreeable remedy which is perfectly unirritating and free from poisonous qualities.

The Treatment of Glandular Tuberculosis.

The treatment of enlarged, tubercular glands is one of great importance, and may be divided into medical and surgical. The former is nearly as important as the latter, and consists of the internal administration of cod-liver oil, and the employment, externally, of massage, baths, and such topical applications as iodine, or mercury ointments. Among baths, sulphur, chloride of sodium, and the like are most useful, the saline being usually more efficacious than the sulphur. The surgical treatment, as now practised, consists of—(1) Incision and curetting. (2) Extirpation. The latter is the most rational method of the two, and one superior to other modes of treatment. The three great points in its favour are:—(a) It does away with the suppuration, which, through secondary infection, imparts the general condition of the patient. (b) When through non interference the glands are allowed to suppurate and open spontaneously, unsightly cicatrices result. (c) One arrests, by this means, the general tubercular conditions and infection of the organism. There are, however, certain contra-indications to extirpation which

are important to be remembered. (1) When tubercular adenitis is secondary and not primary. (2) Extirpation is said to favour metastasis. (3) When the number of glands is very great. (4) It is claimed that the cicatrices from incisions are unduly prominent, but they are not retracted, and hence do not greatly disfigure the parts. (5) The frequency of recurrence. Certainly, however, extirpation should be given the preference in most cases, especially when internal medication has failed, when the glands involve the face, and by their size cause much deformity, when they are isolated and not numerous, when they have undergone fibrous degeneration, or when they are not freely suppurating. Relapse is, however, inevitable when there are tubercular deposits in lungs or joints, and probably when the ramifications in the glandular chain are extensive, badly placed, and difficult to reach.—*Medical Times and Hospital Gazette.*

It is stated that the prime cause of the recent fatal illness of Archduke Karl Ludwig of Austria, brother of the Emperor, was found in the water of the River Jordan, which he drank as a matter of religious devotion.

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Each Fluid Ounce contains :

Damiana,..... 30 grs.

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Useful in promoting growth of the mammae and overcoming ovarian pain.

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REPORTS OF CASES INVITED,

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Acute Entero Colitis.

Under the above title the Atlantic Medical Weekly of August 1, 1896, prints a contribution from the pen of Dr. Alexander B. Briggs. The author treats the disease under three heads: First, the period of premonition, second, the period of emaciation, and third, that of exhaustion.

The exciting cause of the disease it is claimed is due to "an acid fermentation of the food, caused, no doubt, by the excessive development of bacteria in the food either before, during or after digestion." Attention is called to the fact that "in a healthy child very few bacteria are found in the passes from the bowels, while in these cases they are often found in great numbers," the idea of the author being that the development of these bacteria has been going on during the first stage of the disease. In the majority of cases the cause of the trouble lies in the primary digestion, and not in the secondary assimilation. Emphasis is laid on the fact that the disease is wholly distinct from cholera infantum, although the disease often "masquerades under the latter name." The treatment of the disease is considered under three heads: Clearing out of the alimentary canal, diet, and antiseptics. Under the first head calomel and bicarbonate of soda are recommended to be followed by castor oil. After a free catharsis, the treatment should be supplemented by a full antiseptic enemata, with the twofold purpose of flushing out the colon and rectum, and for their medicinal action. For internal treatment "antiseptics still holds good." Preference is given to a mixture of bismuth, prepared chalk and listerine alternating with powders (not tablets) of salol; good results are recorded from the use of small doses ($\frac{5}{100}$ gr.) arsenite of copper, repeated often.

As the disease seems to depend more on an inability to digest the food than to assimilate it the author recommends in some cases that no food be given at all for the first day, to be followed in cases where the child is deprived of breast milk by some partially digested or easily digestible food. Under the head of food two very important points are emphasized: "First, it is worse than useless to give food that cannot be digested; and second,

the food must not be given in too large quantities at any one time. A properly selected food, given a little at a time and often has saved many a child's life while food that cannot be digested, forced into the child's stomach, frequently in large quantities, has killed ten times as many."

A Study of Rachitis in California.

Harry M. Sherman, M. D., of San Francisco, presented at the late meeting of the Medical Society of the State of California, held in Los Angeles, a paper which called attention to a marked increase in the number of cases of rachitis he had seen in the past two years. In the Orthopedic Clinic of the San Francisco Polyclinic he had found that in 1893 the percentage of rachitic cases in children, under 8 years of age, was 7.8, but in 1894 the rachitics increased to 24 per cent., and in 1895 to 32.6 per cent. In his private practice a similar increase was noted, the percentage of rachitics rising from 6.3 in 1893 to 23.25 in 1894, and to 47.6 in 1895.

From answers to a circular letter addressed to all members of the State Medical Society it was shown that the disease existed all through the State in moderate amount. The general opinion expressed in these answers in regard to the causation was that bad hygiene played a very minor part as a factor, but that improper food and feeding, and especially the feeding of the proprietary infant foods caused the greater number of cases.

The opinion was expressed by the writer that all children fed on these foods were potentially or actually rachitic, and had not their best chance in the struggle for existence.

As the best substitute for woman's milk, cow's milk, modified so that the proportions of the chief ingredients closely corresponds to their proportion in woman's milk, was advised.

Phosphorus was the only drug mentioned as being of value.

For the detection of the less marked types of the disease a more thorough and careful examination of infants was urged, it being claimed that many cases labeled "general malnutrition" were really cases of rachitis, of a mild or medium type, and that the whole treatment would have given it point and definiteness by the decision of this question one way or the other.



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Awarded to Charles Marchand's Glycozone by World's Fair of Chicago, 1893, for its powerful healing properties. This harmless remedy prevents fermentation of food in the stomach and it cures:

DYSPEPSIA, GASTRITIS, ULCER OF THE STOMACH, HEART-BURN, AND ALL INFECTIOUS DISEASES OF THE ALIMENTARY TRACT.

HYDROZONE

IS THE STRONGEST ANTISEPTIC KNOWN.

One ounce of this new Remedy is, for its Bactericide Power, equivalent to two ounces of Charles Marchand's Peroxide of Hydrogen (medicinal), which obtained the Highest Award at the World's Fair of Chicago, 1893, for

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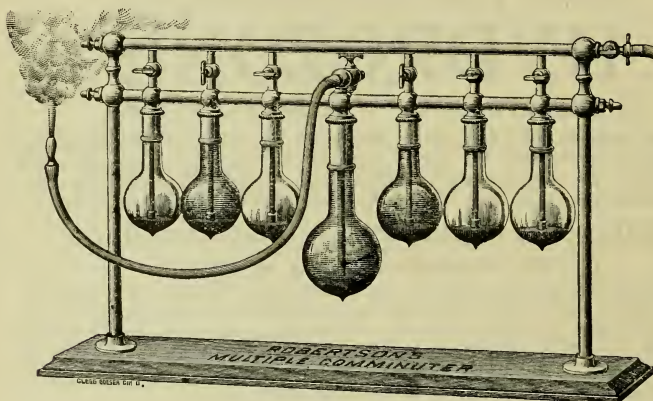
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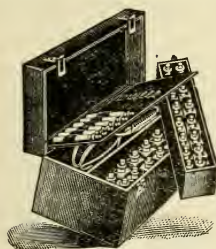
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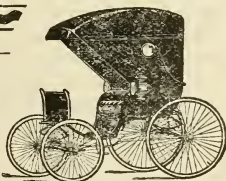
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Some Thoughts on Diseases of the Rectum.

The above is the title of a well written paper by Dr. J. A. Moore, of Hanford, read before the San Joaquin Medical Society, and published in the Occidental Medical Times.

In the paper the author makes a strong plea for greater care in examinations for rectal troubles; urges physicians not to take the statements of patients, but in all cases where symptoms indicate disease of the rectum, to carefully examine each case, and make their own diagnosis,

The writer places his patients in a good light, and by ocular inspection, determines the presence of external piles, eczema, fissure, external openings of fistulas, &c. By digital examination he detects old indurated hemorrhoids, stricture of the gut, foreign body, impacted feces, &c.

By the use of the speculum he determines if there be internal hemorrhoids, ulcers, catarrh, and internal openings of fistulas.

His method of treating external hemorrhoids is as follows: The parts are washed with a solution of bichloride

1-5000, or carbolic acid solution. The skin is divided around the base of the tumor, a silk ligature is thrown around it, and it is cut off close to the ligature; the stump is dusted with powdered acetanald, which is all the dressing that is applied.

Internal hemorrhoids are treated either by injection or the ligature. In selected cases, the plan by injection has given good results, and is commended. The injection fluid used is, fl. ext. ergot 20 parts, glycerine 30 parts, carbolic acid 25 parts, and water 15 parts.

The operation by ligature is done under an anesthetic, the sphincter divulsed, the tumors, in succession drawn down, ligated and cut off with scissors. To secure the best results, and the most rapid healing, as perfect antisepsis is employed as the location and circumstances will admit.

In the treatment of pruritus it is advised that the surgeon do not promise too much. However, by a proper understanding of the etiology of each case, that the majority of cases may be cured.

Attention is called to the rheumatic diathesis as a cause of many of these distressing cases, and the exhibitions of the salicylates advised in their treatment.

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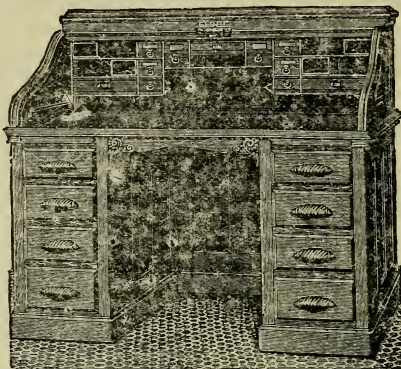
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Pericardial Effusion.

The diagnostic signs of large pericardial effusions have been studied by Ewart (The Hospital, July 18, '96), and his observations should prove valuable in cases where surgical interference is contemplated. Pericardial distension taking place usually in all directions, vertically as well as transversely, the first requisite is knowledge of the normal levels and lateral extensions of the precordial dulness. The author gives the following signs: (1) Considerable extension of the lateral boundaries of the total area of dulness. (2) Great extension of the absolute dulness, the sternum absolutely dull. (3) Depression of the liver. (4) Dr. Rotch's sign—dulness in the right fifth intercartilaginous space; but Ewart cites a case which shows that Rotch's sign is not always to be depended upon, and therefore could not, as had been contended, be upheld as patholomonic. (5) Differential diagnosis between pericardial effusion and cardiac dilation, viz, the lower angle of the pericardial dulness projects towards the right. (6) The relation of the heart's apex to the left lower angle of dulness. In cases of cardiac enlargement or displacement to the left, however brought about, the apex beats at the extreme left limit of the dulness and at its lower level. This is not the case in pericardial effusion, for then the apex cannot be felt where there is much effusion, but may be heard beating at a spot somewhat inside and above the boundaries of dulness. Ewart warns us against what he characterizes as a remarkable misconception hitherto perpetuated by the text-books as to the alleged elevation of the apex within the pericardial effusion, even as high as the third interspace. This impulse, however, is not that of the apex of the heart, but rather of its base. Ewart maintains that at the usual spot for the apex in normal conditions it will also be found at the necropsy of any uncomplicated case of pericardial effusion. The impossibility of the apex being raised to the third interspace by the operation of gravitation or of ordinary mechanics is obvious, firstly, because the specific gravity of the heart, either filled with blood or empty, is much more than 1,018, according to Halliburton, is the usual density of pericardial effusions; secondly, we must re-

member that the heart is tethered to the bottom of the pericardium by the attachment of the inferior vena cava to the foramen quadratum in the central tendon, and that a considerable descent of the diaphragm must depress the levels of the right auricle and tend to depress the apex far from allowing it to rise. (7) The first rib sign: In all cases of considerable pericardial effusion which Ewart has examined for this sign, it was possible to feel with the finger the upper edge of the first rib as far as its sternal attachment. (8) Posterior patch of pericardial dulness, a patch of marked dulness at the left inner base, extending from the spine for varying distances outwards, usually not quite so far as the scapular line and ceasing abruptly with a vertical outer boundary. Its shape is that of a square, and it is quite unlike that of any dulness arising from pleuretic effusion. (9) Tubular breathing below the right mamma: Although not constant, this sign does not appear to have been noticed, and Ewart states that it should be looked for in severe cases. (10) Posterior patch of tubular breathing and ægophony immediately below or slightly to the left of the tip of the left scapula. This sign also occurs in pleural effusion. (11) Secondary pleural effusions. (12) Large and slapping pulse of pericardial effusion.

Special Dangers of Pneumonia in Childbed.

Bruckhäuser (British Medical Journal) scrutinised the conditions relating to two cases of pneumonia which occurred at the beginning of the puerperium; one ended fatally. He believes that the special dangers of pneumonia in childbed depend on certain definite changes natural to the end of pregnancy, but very unfavorable to the patient when attacked by pneumonia. There is a distinct diminution in the proportion of hæmoglobin, the muscular walls of the heart often show degenerative changes, and cardiac murmurs due to disturbances of innervation and nutrition are to be detected. The right side of the heart and the pulmonary circulation are overloaded. Such changes even when as is the rule they are but very feebly marked, put the patient to great jeopardy if she contracts pneumonia.

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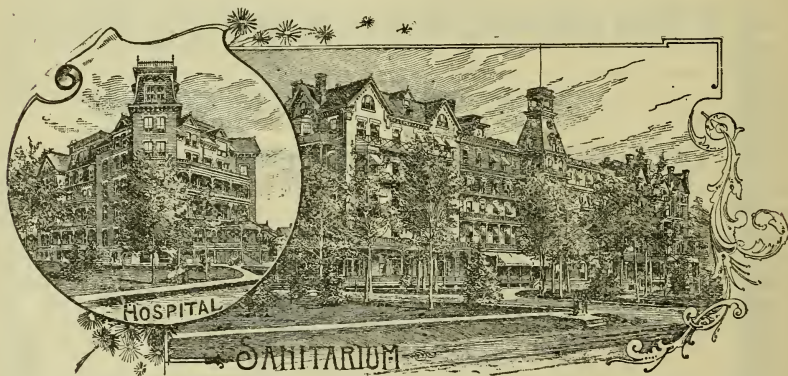
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The Charlotte Medical Journal.

VOL. IX.

CHARLOTTE, N. C., SEPTEMBER, 1896.

No. 3.

Typhoid and Remittent Fever; Their Diagnosis and Treatment.

By EVERETT D. PEEK, M. D., Oglesby, Texas.

There are a number of symptoms in these two diseases that might lead to serious mistakes.

Typhoid fever is one of the most fatal diseases that confronts the physician. There are at least but few who do not feel that their hands are full when called to this disease, and with the greatest care and best nursing a large per cent. will die. Typhoid fever is found in any and all climates. In the strong and robust as well as the weak; among the rich as well as the poor; alike with the high and the low. No season of the year is exempt from it, yet it is more prevalent during the summer and fall months.

Remittent fever is found more commonly in malarial districts during the hot months of summer and fall, following exposure to excessive heat. More common in those whose health is otherwise run down.

The symptoms of typhoid fever begin slowly, as a rule. A feeling of indisposition; a lack of energy, followed by a slight rise in temperature; a red or slightly coated tongue; general weakness and prostration, gradually getting worse until we have the following set of well established symptoms: Fever of 103-6, which has typically risen with about one-half degree for each succeeding day; a full bounding pulse. The typical eruption, which may not be detected unless carefully watched for. Then we have the parched and cracked tongue, sordes on the teeth, may be bleeding from the nose, bowels swollen and tympanitic, with gurgling in the right iliac region, general soreness over the abdomen. There may be diarrhoea or constipation. Then there are a great number of nervous phenomena; delirium of a wandering nature; picking at imaginary objects. Deafness may come on, or disturbances of sight; usually severe headache.

The foregoing are the usual symptoms of a case of typhoid fever, and if carefully looked to are sufficient to enable any one of reasonable experience to make a diagnosis, but these and some complicating symptoms are often so arranged as to make a diagnosis exceedingly difficult.

Remittent fever on the other hand is usually diagnosed with greater ease. It begins suddenly with a chill, fever going up at once to 102-5; there is not the gradual daily rise as in typhoid, but it goes up at once to stay up a certain length of time, and then declines to rise again. There is persistent vomiting, which is not so in typhoid. The tongue is furred and coated, but no sordes. There is pain throughout the body; the pulse are full, 100 to 130 beats per minute. The bowels are costive and the stools are tarry instead of the pea soup discharges of typhoid. There is a yellowish condition of the skin. The eyes are read or of a yellowish cast. There is considerable tenderness and swelling in the region of the liver.

These symptoms, to a great extent, disappear during the night, the fever leaves and the patient feels very well, but all return in the morning. This is not the case in typhoid fever. The duration of these two fevers is in the neighborhood of the same time, from two weeks to two months.

Then to sum up we have as follows:

TYPHOID FEVER.	REMITTENT FEVER.
Begins slowly with or without chill.	Begins abruptly with chill.
Temperature gradually goes up to 106 or more and does not decline to any considerable extent at night.	Temperature suddenly goes up to 105 or 6, and declines to very considerable extent at night.
Tympanitis well marked.	No tympanitis as a rule
Iliac gurgling on right side.	Tenderness and swelling over the liver.
Severe nervous symptoms, delirium, subsultus, headache, loss of hearing, &c.	Nervous symptoms very slight; may be delirium if fever be very high.
Nose bleeding.	None.
Eruption on abdomen.	Persistent vomiting.
Diarrhoea: may be constipation.	Nose bleeding.
Great prostration.	Constipation.
Bronchial cough.	Prostration not so great

To the above list of symptoms we are to add whatever complicating symptoms that may arise, and these are nearly always present more or less.

If you are dealing with remittent fever you can lower the temperature to the normal point, or near it, by the continued use of water, which cannot be done in typhoid: that is to say, if you use the cold pack, or bath, or ice in the early stages of a fever, and the temperate refuses to be controlled, you may well look for typhoid fever.

As to treatment likewise, there may be some points of similarity, but they must be few.

The treatment which has been most successful in my hands, in the treatment of typhoid fever would influence remittent only in part. For typhoid the best that can be done is good nursing, which in this disease is of paramount importance, for I care not what treatment you may use, if you do not nurse your patient well he will surely die. Good feeding we may well place next. I do not know of any disease where so much depends on the feeding of the patient. Give an easily digested, yet a nourishing diet, and repeat it often. You are not to let the patients starve, or rather suffer them to do so, for they often will not eat unless you insist and persuade, &c. Next, I would place water in the treatment of this disease, but with water you are to be cautious. You can keep the fever below 103 with water if you use it properly. Cold bath and pack, sponging frequently, washing of the body with water; but use ice cautiously, because you can greatly damage the constitution of the patient by its immoderate use, yet it is good in its place. Save the strength of the patient in every possible way, for thereby alone can success be attained.

As to medicines I do not know of any that I believe exert a curative influence. Iodine, carb. acid, sulp. carb, zinc, salol and a world of others have been used. My experience has taught me that they do not materially shorten the course of the fever, but may do great mischief. Turpentine emulsion seems to relieve the parched condition of the tongue, &c. Stupes and poultices to the abdomen do good, and then treat symptoms as they may arise. Quinine seems to exert an influence for the better in some cases.

As to the treatment of remittent fever it is vastly different, according to my opinion, from that of typhoid. Here we have special indications for treatment in a great measure; you might say three indications. Remove the poison from the system, control the fever and increase the action of the liver, for it seems as if the disease is influenced greatly by the condition of the liver. I have seen patients with a raging fever, skin yellow, patient stupid, and to all appearances fast going to a fatal termination, greatly relieved by a few doses of calomel.

To meet the first indication quinine is the best of all known remedies. You will find that the temperature will be low during the night, for that reason give quinine in large doses, 20 grs. every two to three hours, followed by calomel. During the day you may not be very anxious to give much quinine if you give plenty at night. The best way to keep down the temperature is by cold sponging, which will always be sufficient if properly used.

To stimulate the action of the liver and unload the bowels, and relieve the third indication, calomel with bi carb. sod. will be sufficient.

Quinine, calomel and cold sponging, are the remedies for remittent fever above all others. If you cannot give quinine by the mouth, give by rectum or hypodermatically.

With the judicious use of the above your cases of remittent fever will usually get well in about two weeks.

I must say that I believe that many of the cases of typhoid fever reported cured in two weeks and less, are in reality cases of remittent fever. Also, I think, many of the cases where calomel is claimed to exert such a favorable influence in the speedy arrest and cure of typhoid fever, are obscure cases of remittent fever, yet I do not say that calomel may not be useful in some cases of typhoid, but I have not seen them.

On Gaseous Decomposition of the Liver.

By WILLIAM MOSER, M. D.,
Pathologist to St. Catharine's Hospital Brooklyn

The discovery of the bacillus *aerogenes capsulatu* by William H. Welch and Nuttall, in 1892, has thrown new light

upon a condition of the liver, which had hitherto been mainly regarded as a post-mortem decomposition rather than a true ante-mortem emphysema, the gaseous formations not only in the liver, but other organs in the body being dependent directly upon the entrance into the circulation of a gas-forming bacillus—the bacillus *ærogenes capsulatu*. Although not a few cases of gaseous formations of the liver, spleen and other internal organs were reported, they were mainly regarded, as previously stated, as a post-mortem change. I had myself demonstrated, about a year ago, before the Brooklyn Pathological Society, a specimen of gaseous formations in the liver as an “unusual post-mortem decomposition of the liver.” I had regarded it as an “unusual post-mortem change,” for the reason that it was the only specimen I had seen out of quite a large number of autopsies. The usual post-mortem change being, as we are all aware, a greenish or greenish black discoloration on the surface of the liver, usually best marked along its free borders.

In the gaseous decomposition of the liver we have a condition in which, even if the autopsy be performed shortly after death, the liver is seen quite completely studded with gas bubbles, and riddled here and there with holes, corresponding, perhaps, in a few instances to where the gas bubbles have ruptured. Ernst (quoted by Welch in *Journal of Experimental Medicine*, No. 1,) is inclined to regard the holes as post-mortem, and the gaseous formations as ante-mortem.

The liver substance has a spongy feel to the touch, and in fact the liver substance, when a section of it is made, riddled as it is with holes, gives much the appearance of a sponge. The whole organ when placed in water will float, and I demonstrated before the Brooklyn Pathological Society, how sections taken from different parts of the liver will float in water, like a healthy air-containing lung. In the same manner, if a section of the liver be made, and placed between the fingers it will crepitate, like a healthy air-containing lung. If we bear these last facts in mind, and it is to them that I wished especially to refer, it is difficult to see how this condition of the liver can be confounded with any other.

This gaseous or emphysematous condi-

tion of the liver, spleen and other organs has not infrequently been associated with the puerperal state. I found the condition in question, in a pregnant woman who was seized with puerperal convulsions. The autopsy was performed shortly after death, and the body had been kept on ice. It naturally occurred to me if this condition of the liver was a post-mortem change, why is it we do not see it oftener?

I regret to state that I was unaware of the labors of Welch and Nuttall at the time, and hence did not demonstrate the bacillus in my case. Their careful experiments on animals, in which by inoculations of pure cultures of the bacillus, they could reproduce these gaseous formations, ought to be satisfactory evidence that the condition may be ante-mortem, dependent upon the bacillus *ærogenes capsulatu*. (Vide *Journal of Experimental Medicine*, No. 1.)

Although partly digressing from the subject, it may not be amiss to state *en passant*, that important changes do occur in the liver in puerperal convulsions not infrequently. I refer to the hepatitis hemorrhagica of Jürgens* and in a few instances acute yellow atrophy of the liver may occur. (Ahlfeld, Stumpf). In the hepatitis hemorrhagica the liver is the seat of parenchymatous degeneration, and studded with punctate hemorrhages on the surface as well as in the interior. They often coalesce and form large red patches on the surface of the organ. Though this condition is not constant in puerperal convulsions, yet when it does occur, coupled with the fact that it is so rarely seen in other conditions, I would not hesitate to state, that the woman died from puerperal convulsions without the least clinical history of the case. Surely these changes in the liver could not be confounded with the gaseous changes just described.

158 Ross St., Brooklyn, N. Y.

Burns: First relieve irritation with caron oil (linseed oil and lime water); then dress with aristol ointment, over which place cotton batting and bandage.

*Vide article by writer in N. Y. Medical Record, March, 1893, “A Review of the Pathology of Puerperal Eclampsia.”

A Few Observations on the Therapy of Strychnia Nit.*

By JAMES A. BURROUGHS, M. D., Asheville, N. C.

The intention of this short paper is to elicit a discussion and get an expression of views by each member of this society upon the administration and clinical results of one of our best alkaloids. All of us know something, but no one knows it all.

I dare say that some of you gentlemen will hold up your hands in holy horror at the large doses I some times administer of strychnine nitrate without poisonous symptoms, and with the most pleasing and satisfactory results.

I wish to state here that strychnine nitrate has been recommended in such small doses by all our authorities and writers, that the great mass of our noble profession has failed to grasp the value of the drug, and its therapeutic application to the alleviation of symptoms, and I may say the cure of certain diseases and habits.

Do not lose sight of the fact that strychnine, in too large doses, is a poison and will throw a patient into muscular twitching and convulsions, but it can be safely administered in one-eighth grain doses twice daily, to any adult, where the drug is indicated.

In profound nervous depression or shock, during or following a surgical operation, strychnine nitrate is well borne and I have seen one-fourth of a grain, yes, one-half of a grain administered subcutaneously, in the course of one short hour, with the satisfaction of observing the heart action stronger, respiration deeper and more regular, with a general vitality taking possession of the human economy.

In acute and chronic pulmonary troubles, strychnine nitrate is my best friend to strengthen and spur on a jaded heart to pump blood for oxygen, as well as to give up its poisons, which are frequently accumulating and submerging the vital centres for want of a better circulation to cause elimination.

From one-eighth to one-sixth of a grain

of this drug is given twice daily to the majority of consumptives under my care, with a noticeable improvement of circulation, digestion, and general vitality. I cannot imagine but two conditions where heart tonics or stimulants are indicated that I would not use this drug; one is in cerebro spinal meningitis, and the other is in the third or fourth week of typhoid fever where hemorrhage is impending.

No one drug has given me the satisfaction in treating sciatica or trifacial neuralgia, as the systematic hypodermic use of strychnine nitrate.

You may think that you are accomplishing nothing; but if you will be persistent in the use of strychnine, your efforts will be rewarded by observing the paroxysms becoming lighter and lighter, until your patient is cured. It has succeeded with me in three cases, where all other means had failed.

During the month of March, 1890, I was called to Miss "B," age 43, who developed hip joint trouble when a child, and in later years had experienced a return of pain, necrosis, and all the discomforts attached to tuberculosis of the bone. The lady was taking six to eight grains of morphine each day to ease her pain and keep her comfortable. She had been taking about that quantity for four years.

The dead bone was removed and incision healed, and yet the patient insisted that she still needed the same quantity of morphine. After explaining the situation to the family, a reliable nurse was placed in charge, and a systematic withdrawal of the morphine was instituted in connection with hypodermic injections of strychnine nitrate. This lady was started on one-sixteenth grain of strychnine nitrate daily, and at the expiration of three weeks, was taking two injections of one-eighth grain each, daily. The morphine had been reduced to a minimum dose, one-sixth grain daily. At the expiration of four weeks the morphine was entirely dispensed with, but the strychnine was kept up for two months in one-eighth grain doses, daily.

Sulfonal and extract hyosyamus, was all that was given, in this case, to cause rest and drive away the delirium. Miss B. has not returned to the bonds of morphine, notwithstanding she has suffered, within the last year, a relapse of necrosis of the

*Read before the Buncombe County Medical Society, July 20th, 1896.

bone, and undergone a surgical operation for same.

Was called to Mr. H., May, 1894, to set a broken leg. In a short time I found that my patient was taking about twenty grains of morphine and a quart of whiskey daily. I had a good reliable nurse, and his broken leg well adjusted in a silicate case; so we proceeded to treat him for this double habit with strychnine nitrate; we gradually reduced the morphine and whiskey, and commenced strychnine nitrate one-sixteenth grain dose twice daily, gradually increasing the amount for a month, at which time the patient was getting one-fourth grain in the morning, and one-eighth grain each afternoon.

Whiskey was dropped in fourteen days and no morphine was given after the twenty-ninth day. Hydrobromate of hyoscine subcutaneously and sulfonal by the mouth was given to quiet the nervous system and cause rest. Daily hypodermics of hydrobromate of hyoscine, and decreasing doses of strychnine nitrate were administered for forty-seven days longer. This patient has not returned to the opium habit, but has been taking his whiskey for the past seven months.

I have now a patient under my care, for the double habit of alcohol and morphine; he is an old transgressor, having taken the Keely twice. When I took charge of him a little more than two weeks ago, he was taking morphine in enormous quantities, and at least three pints of whiskey daily. His morphia and whiskey have each been withdrawn for several days, and strychnine nitrate gradually increased. To-day he has received two one-fourth grain doses and $\frac{1}{50}$ grain hydrobromate of hyoscine. There is no question in my mind about curing this patient, yet, in the course of time, it is more than probable he will relapse for want of mental stamina and moral courage in which he is deficient.

March 5th, 1895, Mr. A. consulted me about taking the Keely treatment. He was drinking more than a pint of whiskey every day; sometimes a quart. Mr. A. was attending to business in a business like way, and few people knew that he was drinking; yet he realized that he had developed the liquor habit. Repeated moral efforts had convinced him that the trouble could not be thrown off without some medical assistance. He

did not like the idea of taking the Keely, as that would expose his past life to the public, and would most likely have its bearing upon his private business as well as his future usefulness in the community. This man was a friend of mine, and I knew that he was in earnest about quitting drink. I told him if he would go home and allow me to take absolute charge of him I was sure that I could promise all that Mr. Keely could do, and that his nearest neighbor need never know his real illness.

Of course, he had the LaGrippe badly; then a good reliable nurse was placed in charge, with strict instruction that no visitors should be allowed. Whiskey was discontinued from the start and strychnine nitrate administered, hypodermically, commencing with one-sixteenth grain daily, and going up to one-eighth grain twice daily, by the twenty-first day. Hypodermics of hydrobromate of hyoscine and sulfonal were given to quiet the nerves and cause rest. At the end of thirty-three days, the man was attending to his business; but came to my office for more than a month longer for his strychnine, which was being gradually reduced in quantity. The patient has not tasted whiskey since he was placed in bed March 5th, 1895, and in my judgment, will live a sober life and die a sober man.

I have treated eleven cases of chronic alcoholism with strychnine nitrate, and but four out of the eleven returned to the habit. This does not include the second case reported, which had the double habit. I have treated five cases for the morphine habit with strychnine nitrate, and but two have returned to the use of the drug.

I feel that the downfall of one of these was due to a physician prescribing opium during an attack of dysentery, whilst away from Asheville.

Alcohol, Ammonia, Digitalis, Strophanthus and Nitro-Glycerine each has its place in the practice of medicine, and, at times, fills in a link peculiar to itself as no other drug will do; but as an all round reliable heart tonic and nerve stimulant, nitrate of strychnine has the widest range of them all; besides, when properly and judiciously administered, it will cure sciatica, also the opium and liquor habits.

Feeding of Infants.*

By CARL V. REYNOLDS, M. D.

In entering upon this discussion from a scientific point of view, we must first familiarize ourselves with the chemical analysis of nature's food, mothers' milk. So true is she to her subject and just so bitterly opposed to opposition that she neither frowns nor smiles, weeps nor rejoices at our ignorance, for, poisons and neutriton, life and death are alike to her; but in time she leaves a wrecked constitution, susceptible to any disease.

Frequently are we called into a home to find the little one,—not active or playful, smiling or laughing, not seeming to enjoy every moment of its new life; but we find it pale, anemic, inexpressive, muscles flabby, Costro-Condal joints, distal epiphysis of radii enlarged, skull defective in form, fontonells slow in closing, and ossifications far from the proper standard. Such is a picture, poorly portrayed, that we see, which calls to mind that horrible word, neglect, lack of proper instruction from the physician, more than ignorance or neglect on part of the parent. Then we have, from failing to conform to nature, Rickets, Sclerosis, Scurvey, Potts disease of the spine, etc., in fact, fertile soil for the invasion of most any malady.

Why not be true to her? Shun her punishment and raise a beautiful, strong, robust, healthy, Buncomb child.

How can we do this? Is a question which has agitated the thinking man of our noble profession.

The essentials of food are, as you well know Nitrogen, Hydro Carbons, Carbo Hydrates, Salts and H_2O water, so naturely comes to our minds, the thought from what source can be obtained, food, with these constituents and in the proper proportions to be attacked by the alimentary secretions, the secretions, which nature has so amply provided for us, but which can do so much and no more.

The Doctors, as a rule, fail to realize this until the track has been over taxed and injured, then the process of repair has to be begun. Why should this occur? Why not begin at birth and devel-

ope a digestive apparatus, which will save us much embarrassment? All these essentials of food are found in "woman's milk," which has been tried for ages and found in proper proportions to be assimilated without discomfort or injury to the infant. Bear with me while I give you, as near as possible, what is "human milk," 'tis true, dry facts, but from these we must aim to reach success, empty our hospitals and poor-houses, which is the result of some broken law of nature. We will begin by assuming that "mother's milk" is superior to all. In looking up the record of 83 samples, the average chemical analysis was found to be as follows:

Water.....	87.88	per cent.
Solids.....	13.12	"
Fats.....	04.00	"
Albuminoids.....	01.02	"
Sugar.....	07.00	"

Alkaline reaction and Aseptic.

This constituting the analysis of "mother's milk," and when fed to the infant, by means of the breast, only 82 out of 1,000 die. (Winters). We must recognise this as our standard and deserves our first and only consideration, if possible to obtain it, but when impossible, we must consider the next best food, which is, on account of its availability and cheapness, "cow's milk."

In calling to mind the analysis of the two, we can see, in one glance, the vast dissimilarities and at the same time realize the radical changes to be made before assimilation can take place, the great difference being in the relative proportions of Fats, Albuminoids, Sugars and Solids.

The composition of "cow's milk" is as follows:

Water.....	86.87	per cent.
Solids.....	14 13	"
Fats.....	34.00	"
Albuminoids.....	04.00	"
Sugar.....	04.50	"

Acid reaction and Bacteria.

In calling to mind the analysis of "mother's milk" and comparing the two, you see that the great difference is that there are 2 or 3 parts more of the albuminoids and 3 parts less of sugar in "cow's milk."

The quantity can be remedied by the addition of water, but as to the quality; this is the question which demands time, thought and scientific investigation and right here seems to be our stumbling block.

The principal constituent, in the album-

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inoids, is Caseine and in this protied we find the secret, to a great extent, of the bad assimilation of "cow's milk. It differs from Caseine, in "woman's milk" in that it is,

(A) Less soluble in water.

(B) Forms an acid solution, while in case of "woman's milk" is alkaline.

(C) Does not dissolve so readily when attacked by gastric juices.

(D) Mineral and Organic acids coagulate cow's caseine into hard lumps while that of woman's milk is in light flocculent masses.

"Cow's milk" is inferior to "Mother's," but when necessity demands its use, we can change it by dilution, alkalization, addition of cream, and sugar of milk, and sterilization and to a great extent, the objections can be removed. Mothers have been educated to the extent that the milk should be sterilized, and the method is to boil it. Gentlemen, this is wrong and does great injury to the innocent infant. Why does it do so much harm? For the reason, that we have:

(A) A great loss of fats.

(B) Makes it less palatable.

(C) Coagulates the albumins, and in so doing, throws down the caseine in hard flakes, which are very difficult to digest, in fact are not digested, but on the contrary, produces indigestion, diarrhœa and a general catarrhal condition of the alimentary track.

For fear of making my paper too long, and imposing upon your time and good nature, I will not discuss the other foods, namely, Mellen's, Nestle's, Hyrlick's and Malted and Condensed Milks, etc., but merely mention some of them, so that they can be depreciated somewhat in value in the following discussion, and may I add that the death rate of artificially fed infants is 500 out of a 1,000, (Winters).

The women of today think more of self than of their offspring; every day you hear the plea for liberty, the complaint of having to remain at home, can't enjoy the socialties of life, the desire to go to the ball-room and theatre. Ladies of wealth and society do not accept maternity as they should, far from it, they would get out of it all, if they only knew the secrets of our profession, and only that is accepted which they cannot refuse.

Away with this kind of argument; home

with the baby is the place for the mothers; smash the bottle and resort to nature's fountain to supply the wants of our country's babies.

Hypertrophic Rhinitis, a Simple Treatment for a Common Disease,

By J. A. THOMPSON, M. D., Cincinnati, O.

The physiological activity of any tissue in the human body can best be determined by the amount of its blood supply. Measured by this universally accepted standard, there is no tissue in the body whose functional activity is greater than that of the turbinated bodies in the nose. These structures covering the turbinated bone are practically a mass of blood vessels. They have often been compared to erectile tissue. A better comparison would be to liken them to the glomeruli of the kidneys.

The liability of any tissue to inflammation is in part proportioned to the amount and variability of its blood supply. Protection from or exposure to external irritants is the next most important factor in determining the comparative frequency of inflammatory changes. When we consider that in proportion to their size the turbinated bodies receive more blood than any other organ of the body and that the amount of this supply is constantly changing, we have one good reason for the observed clinical fact that chronic inflammation of the turbinated bodies is the most frequent of all lesions in the human body. The constant exposure of the overlying mucous membrane to irritants from without, is also an important factor in determining the frequency of this disease.

Too often, the physician busy with what he regards as weightier matters of pathology, pays little or no attention to the diseases of the nose. He regards them as purely local lesions, causing some discomfort and disagreeable to those associated with the patient when the discharge becomes offensive. He attaches little importance to nasal diseases as shortening the duration of life or weakening the patient while living. When we consider the function in the normal economy of this very important organ in the light of recent knowledge, we learn that

this attitude of the profession at large is a seriously mistaken one.

The object of the enormous blood supply to the turbinated bodies is that all the air which enters the throat and lungs shall be warmed and moistened and cleaned of dust and disease germs before it reaches them. This truth, first learned by clinical observation, has since been abundantly proven by direct experiment. No matter what the temperature of the external air may be, by the time it has passed through one nostril in the act of inspiration, it is warmed to near the temperature of the body and is saturated with moisture. Failing to be thus prepared, when cold, dry, dust laden air is inhaled through the mouth, or through a diseased nostril, it acts as an irritant to the lower air passages and sets up in time a chronic pharyngitis, laryngitis and bronchitis.

Recent experiments of Thompson and Hewlett have shown that the secretion from a normal nasal mucosa is germicidal. Every one inhales great numbers of disease germs daily. Chronically inflamed tissue is always more liable to infection than one in a normal condition. Hence, while any obstruction to nasal respiration does not directly produce any serious disease, it predisposes the patient to acute bronchitis, pneumonia and tuberculosis.

Another result of imperfect nasal respiration is direct interference with the nutrition of the patient. A chronically inflamed dry membrane in the lungs does not permit the normal interchange between the oxygen of the air and the carbonic acid and other gases of the blood. This imperfect osmosis interferes with all the processes of nutrition. While to many it will seem an exaggerated statement, it is a common-place to the rhinologist to say that an adult patient will gain ten to fifteen pounds in weight and gain correspondingly in strength and energy within three months after the removal of a nasal obstruction.

With these preliminary remarks as to the importance of an exceedingly common and very much neglected disease, we will pass directly to the consideration of its diagnostic symptoms. It comes on very gradually. The first symptom usually to attract the patient's attention is that one nostril is always closed. The obstruction changes from side to side from

the most trivial causes, sometimes apparently without any cause at all. For example, when the patient retires the nostril on the side on which he lies will close. If he turns over in bed, in a few moments the upper nostril becomes clear and the lower closed. Thickening of the nasal secretions is the next symptom noticed. The patient blows crusts of mucus out of the nose. In this disorder these crusts are not offensive. They are regarded by the patient as evidence of increased secretions, when in reality they indicate diminished secretion robbed of a portion of its water by the inspired air and thus thickened. The patient's voice has a nasal tone. He notices too that he catches cold very easily. Another prominent symptom, and one which is too often misinterpreted, is a coated tongue. Every person who is a mouth breather while asleep, will awaken with a dry, coated tongue, and with a more or less offensive taste in the mouth, and a slightly offensive breath. This is too often treated as the result of some gastric disorder, a slight dyspepsia. The physician overlooks the fact that the most frequent cause of a coated tongue is not a disorder of digestion but an obstructed nose. A morning cough from the irritation of the throat and the accumulation of secretion in it during the nocturnal period of mouth breathing, is also a very common symptom. In extreme cases the patient may be nauseated in the early morning in the attempt to clean the naso-pharynx of the accumulated mucus. The cough which is almost always present in these cases may be due to either one of two causes. It may be reflex and dependent upon some small point of irritation in the nose. More commonly though, it is due to a secondary laryngitis developed as a result of the mouth breathing. Asthmatic patients, whose attacks begin in the night, nearly always have obstructed nostrils, generally from hypertrophic rhinitis.

A frequent and very misleading symptom is supraorbital neuralgia or headache. The headache is in many cases periodical, worse in the morning and becoming much easier or disappearing altogether by noon or by two o'clock in the afternoon. In very many cases this is mistaken for and treated for a malarial headache, without benefit. In other cases the headache is continuous. There will be

occasional exacerbations and periods of amelioration, but the patient is always conscious of pressure and pain over the eyes. Mental dullness and an aversion to either mental or physical effort usually accompanies this constant headache.

Direct examination of the nose in this disease will show the turbinated bodies enlarged and congested, closing the ordinary passages for respiration more or less completely. Where the disease has existed a number of years, the anterior portion of the middle turbinated body may have undergone mucoid degeneration, and will appear as a translucent, glistening mass, grayish white in color.

As the nose is the regulator of the air supply to the middle ear, more or less catarrhal deafness is always associated with hypertrophic rhinitis.

As additional complications we have catarrh of the naso-pharynx, pharyngitis, laryngitis and more or less bronchitis. The disease ordinarily terminates in one of two ways. It may result in the formation of polypi with subsequent necrosis of the middle turbinated bone. In other cases the normal tissues are replaced by connective tissue.

The prophylactic treatment of this disease implies, first, measures to prevent the patient contracting repeated colds. Cold shower baths are decidedly the most effective treatment for this purpose. After the acute infectious fevers, the patient should not be considered well until the mucous membrane of the nose, throat and ear is in a normal condition. If these cases were treated until really well, we would have fewer cases of hypertrophic rhinitis.

Some of the graver changes or results of hypertrophic rhinitis require operative interference before the case can be cured. Where there is a deflected or deformed septum, this deformity must be corrected by operation before it is possible to cure the disease of the turbinated body. Where there has been extensive mucoid degeneration, or where polypi have formed, the removal of the diseased tissue by operation is demanded, but the ordinary uncomplicated case can be cured by very simple measures and by any physician skilled enough to thoroughly examine the nose. This simple treatment for the uncomplicated case is all that I shall detail

here as being the part most valuable to the physician in general practice.

In the early stages, when there is merely an alternating congestion of the turbinated bodies, simple sprays which will reduce the congestion will in time cure the case and prevent the formation of nodules of connective tissue, the true lesion of hypertrophic rhinitis. The most effective remedies in this early stage are those which act as local anæsthetics by depriving the parts temporarily of their blood supply. Of these, the most efficient remedies are, perhaps, Menthol, Camphor and Resorcin. These should be used as a spray in a very mild solution, by the patient himself two or three times per day.

Most of the ready made preparations on the market, which are so extensively advertised, contain remedies that are incompatible, contain too much of the medicines in solution, and are consequently irritating and leave the patient worse than before their use. From three to five grains of Menthol or Camphor, and not over ten or fifteen of Resorcin to the ounce should be used. Later in the case, where there is evidence of the formation of true connective tissue, other treatment must be added to these simple sprays.

Some method of destroying the new formed tissue must then be adopted. The simplest effective plan is to first thoroughly anesthetize the nostril with a four per cent. solution of Cocaine. Ten minutes after this is applied, the blood will be thoroughly squeezed out of the healthy tissue and the turbinated bodies will appear as a very thin membrane wrapped around the turbinated bone. Wherever there is the formation of new tissue, there will be a projection or elevation of the membrane at that point. To these elevated points, a saturated solution of Chromic Acid should be accurately applied. Not more than one or two should be touched at one treatment, and not a large surface covered at any time,

Within a week or ten days after this application, it will be found that the new formed connective tissue has sloughed out, leaving a cicatrix which aids in preventing extreme dilatation of the turbinated bodies in the future.

This simple treatment can be reapplied as often as is necessary until all the foci

of disease have been treated and destroyed. All the instruments needed are a good lamp, a forehead mirror, a nasal speculum and an aluminum probe.

By following this plan in uncomplicated cases, you can relieve your patient of the headache, of the cough and of the general symptoms which accompany this disorder.

Cortical Cerebral Localization.

Dr Wesley Mills, Professor of Physiology in McGill University, author of a text-book of Animal Physiology, etc., gave a demonstration to the members of the Canada Medical Association on the above subject.

He employed a pigeon from which the entire cerebrum had been removed an hour before, and showed that when thrown into the air it was still capable of flight; a rabbit from which the cortical centres for the limbs and neck on both sides had been excised the day before, and which was able to jump in the most lively fashion; a mature cat with the circum-crucial area on one side obliterated two months before; a kitten with both circum-crucial motor areas (for the limbs and neck) removed by two operations, the last two weeks previously, both the cats being in their movements, to ordinary observation, perfectly normal; a puppy three months old from which there had been excised the motor centres on each side for the neck and the limbs a week previously. This puppy could walk, run, scratch, etc., but still showed a tendency to slip on a smooth surface and to double the paws under (wrist-drop), present in cats also for a short time after such operations.

All the operations were performed when the animals were under the influence of an anæsthetic, and the wounds were carefully dressed. The latter healed quickly.

Dr. J. W. Scane, Demonstrator of Physiology in McGill University, assisted in the operation and other procedures.

The purpose of these demonstrations were to make clear that ablation of cortical motor areas of the cerebrum did not in these animals result as in man and the monkey in paralysis, though there was some loss of power of a very subordinate and temporary character.

It was further maintained that these and other experiments prove that motor

centres are not all on the same physiological plane, but that we must recognize a functional scale, centres in some animals being much better organized than in others so that their removal is a matter of more serious import.

As the author has pointed out in his Text-Book of Animal Physiology, this question of localization, and many others, can only be settled in a broad and sure way by comparative studies. Had this been borne in mind many heated controversies on the subject would never have had an existence.

Sarcoma of the Tongue.

Perkins (Annals of Surgery.) Sarcomatous disease of the tongue is so rare an affection that the author considered that a case under his own care was worthy of being reported. A male, aged 26, with good family and personal history, noticed a small growth on the upper surface of the tongue and centrally situated when 4 years of age. At 12 the growth had increased to the size of a walnut and was treated by painting with iodine. A sudden increase of size at 25 years of age caused the patient to consult a physician, who removed a piece from the under surface of the tongue as large as a walnut. A year later a fresh increase took place, affecting the front half of the tongue and projecting centrally, both upwards and downwards; it interfered also with speech and deglutition, but was painless. When seen by the author the anterior three-fifths were implicated, but there was no ulceration or implication of glands. Protrusion could be effected with great difficulty, and only by luxating the jaw. The growth was removed by Whitehead's method, the section being made three-quarters of an inch behind, and in healthy tissue. Recovery was uneventful. Microscopically the growth proved to be a fibro-sarcoma. No return for twenty months; at the end of that time a thickening of the floor, with glandular enlargement, took place. Further treatment was declined, and the patient disappeared from observation—to die, the author believes. The long duration of the disease, with a sudden increase in the symptoms, point to the growth in the first instance having been of a benign character, and taking on malignant action.

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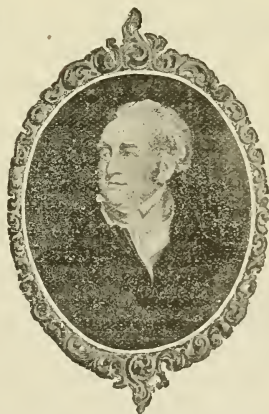


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Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street, NEW YORK.

THE

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E. C. REGISTER, M. D.

J. C. MONTGOMERY, M. D.

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No. 36 SOUTH TRYON STREET, - - - -

- - - - - CHARLOTTE, N. C.

SUBSCRIPTION. \$2-50 PER YEAR,**THE EXCESSIVE USE OF DRUGS IN THE PRACTICE OF MEDICINE.**

Without doubt a large number of physicians in the general practice of medicine prescribe drugs largely in excess of what is really necessary or beneficial for the relief of their complaints. There is not a shadow of a doubt that many patients would obtain relief much quicker with half the amount of medicine that is sometimes administered. If a drug is not necessary for a certain case, it is of necessity an injury.

We particularly desire to protest against the "gun shot" prescribing of drugs. That is, where from half a dozen to a dozen separate and distinct medicines are ordered in one prescription. It seems to us that in such cases the attending physician thinks if he misses with one he will hit with the other.

How often do we hear a member of the laity, in speaking of some late illness they have passed through, express their belief that "Dr. so and so did not really know what was the trouble with them, for he changed the medicine every day!" In such cases as these there is evidently something wrong! Either the patient was right and his medical attendant was uncertain as to the malady, or else the physician did not have the proper knowledge of the physiological effect of drugs, and ordered a change before he had used it a sufficient time to obtain the desired effect.

We frequently see collected in the room of a patient, after some protracted illness, medicine bottles and boxes by the dozen—some scarcely used at all. This is not only unnecessary, but creates a bad impression among the minds of the laity. All of us believe that most acute febrile diseases tend to recovery themselves (if uncomplicated) if only the proper amount of common sense is displayed and nature

assisted by the necessary amount of nourishment to the sick.

Why then do so many medical men persist in pouring into their patients bottle after bottle of the most obnoxious drugs in the dispensary? We do not wish it understood that we oppose the proper use of medicine, but we do insist upon simple prescriptions, with as few ingredients in them as will possibly meet the desired effect. Diseases, therefore, that run a certain course (that is, those that are very limited,) are, we believe, cases in which the physician should use good judgment and common sense, or else the injurious effect of constantly pouring into their patients drugs whose effects are doubtful at best, will, we believe, frequently retard recovery, instead of hastening it.

We frequently see physicians when called to a case prescribe a certain drug, or combination of them, because some one has recommended them, or he is in the habit of giving them, not for the special purpose of producing any given effect, but because the patient has a given disease. A protest should be entered against such practice as being unskilful and too much of the routine order.

Rarely do we find any set of patients that can be treated exactly alike. We should remember what is food to one may be poison to another.

To recapitulate then, we suggest the simplifying of all prescriptions and changing them only when utterly necessary. Good hygiene, proper diet, abstraction of heat in febrile affections by external means, a clean alimentary canal, as few drugs as possible, and I am sure patients will convalesce more rapidly.

PRELIMINARY EDUCATIONAL REQUIREMENTS FOR STUDENTS OF MEDICINE.

Every true friend of medical education has witnessed with gratification the immense improvements in the courses in the medical schools all over the Country. The scholastic year has been lengthened from four or five months to six, seven, eight and in several instances to even nine months; laboratory and clinical advantages have been enormously increased; the requirement a few years ago of attendance upon only two courses of lectures has been increased so that now,

almost without exception, at least three years of study are required of those who aspire to the degree of doctor of medicine. More than this, a four years' course of study is now demanded before the degree is conferred by a very considerable number of the more prominent medical schools. Indeed the State boards in New York, Pennsylvania and Illinois now recognize only those diplomas granted by medical schools requiring attendance upon four courses of lectures. License to practice medicine is now, in the majority of States, granted by an examining board. All this progress has been so rapid that the most ardent friends of higher medical education could scarcely have hoped for or desired more.

What has been accomplished is a genuine and solid improvement. But it leaves untouched the equally important matter of preliminary educational requirements of those who begin the study of medicine. How often it has happened that the young man has left the plough, the counter or the engine, without the rudiments of a common school education often unable to speak or write the simplest English correctly and begun the study of medicine. Almost without exception, medical schools received students without question who demanded entrance. As a result many men totally unfitted to pursue the study of medicine have been given degrees and are now practicing medicine. This resulted very largely from the desire of various medical schools to secure as many students as possible, the incomes of individual professors in the faculties of these schools being dependent upon it.

But now with the advances made in the matter of medical education itself comes the demand for at least some minimum educational requirements of those who wish to begin the study of medicine. Already certain uniform requirements are made in New York; and in Pennsylvania, the State Board of Medical Examiners has recently issued an order that those entering upon the study of medicine in the fall of 1896 must possess a diploma from Colleges, Academies, Seminaries, Normal or High Schools or a teacher's permanent certificate or in lieu thereof pass an examination before a City Superintendent of Public Schools in Arithmetic, English Grammar, Geogra-

phy, U. S. History and Composition. In both New York and Pennsylvania the matter of preliminary educational requirements, is out of the hands of the medical colleges; and this is certainly as it should be. But any medical school can, of course, adopt more rigid requirements than that demanded by the State. It is not unlikely that in both these States the requirements will be made more severe before long. Nor is it too much to hope that in due time in most or all States a minimum educational requirement, at least as high as that of Pennsylvania will be adopted. All true friends of higher medical education should labor for it. Let it be no longer said that students can enter American medical schools without any examination as to their fitness to pursue the study of medicine—a stigmata of shame which has too long rested upon the profession in the United States.

PAINLESS TREATMENT OF LOCAL DISEASES.

Many years ago the dignity of the Medical Profession was disturbed by having distributed under its very nose circulars by the thousand which declared that *cancers could be cured* and that without resorting to the painful and cruel methods of the ordinary surgeon. Now it so happened that there was a grain or two of truth in the statements of these cancer quacks. Their assurance attracted persons who were really suffering from the dreaded disease, or persons who thought they were, and the treatment employed resulted in the cure of numberless cases of disease—not always cancer. The unspeakable suffering and the awful deaths that followed this painless treatment was known to the sufferers who were soon buried, and to the ordinary surgeons who attended them but who lived to tell the tale. The audacity of the specialist of this class is to be seen at points all over the country to-day.

The grains of truth in the work and words of these or any other practitioners of questionable repute may and ought to be grasped by regular practitioners. The truth never hurts no matter what its source. One of the lessons taught by the cancer specialist and his patients is that many people abhor a cutting operation,

and dislike an anæsthetic that takes away their consciousness, and that it is necessary sometimes to yield to these prejudices. This seeming necessity has given rise to the mischievous idea that there is such a thing as a painless system of treatment of local diseases—let us say, for instance, of diseases of the rectum—“piles cured without the use of knife, ligature, or cautery,” and that sort of thing. Many diseases may be treated painlessly, but there is no such thing as a painless system of universal applications. In the treatment of that very common disease of the rectum, hemorrhoids, the injection method of treatment—one of the forms of painless treatment—will cure many cases, but it is to be used with the greatest circumspection inasmuch as the greatest harm sometimes follows its use.

Another painless method of treating diseases is the injection method of producing a radical cure of hemia. If the testimony of those who have endured this treatment may be taken, the method is far from painless. That the radical cure sought is often brought about there can be no doubt, but that this treatment has in it the elements of great danger there can also be no doubt.

Just here it may not be out of place to offer a word of caution against the indiscriminate use of the hypodermic syringe about diseased teeth to secure their painless extraction. Many a time it has proved a boon to the sufferer; but many a mouth is being made to slough, while the systemic effect of the injected fluid is sometimes alarming and prolonged.

The practical application of these paragraphs is that it is possible to practice medicine with a due admixture of common sense with one's feelings of mercy—just as the fathers practiced before us, and they were the pioneers in general anæsthesia and painless surgery.

MEDICAL COLLEGES.

Every true and conscientious physician feels a deep interest in whatever tends to elevate the medical profession.

There is no question in our mind as to where the fault is, when incompetent men are turned loose on the Public. It rests, in the first place solely on the colleges. If the colleges in the past had done their

full duty there would be no State Board of Examiners in the United States.

The cry in the past few years has been that there are too many medical colleges. We do not think the fault is there. If a medical college is formed and chartered for the sole purpose of making money either directly or indirectly, then it is one too many. It naturally follows, with that purpose in view, that they will do everything in their power to get students. They will give cheap tuition, which would not matter so much if it was *well done*. But they will have a low standard of graduation in order to keep from running off students, and therein lies the great fault. When we graduated in medicine, one of my class mates came to me and asked me to quiz him the two weeks preceding the examination. He knew nothing about medicine and had attended two courses. I knew it was folly to attempt to go over the course with him. I taught him Pneumonia, Pleurisy, Bronchitis and Typhoid Fever Symptoms, Diagnosis, Treatment and Pathology, and he had it right pat. I learned afterwards when his case came before the faculty that every member of the faculty, except the Professor of Practice stated that he knew nothing of their branch, but seemed to be well posted on the practice of medicine. The Professor of Practice was the only member who would have passed him. The other professors, when they found him so ignorant, commenced to ask him on Pneumonia, Typhoid fever, &c. He got his diploma. Now that school had in its faculty some of the most eminent physicians America has ever produced. If those men would do that, what can we expect of lesser lights and who love the profession only for what they can get out of it. The evil then in medical colleges is graduating men who are not fitted for the profession. The standard is too low. Take a man, examine him on the seven main branches and then add up the whole and divide by seven, to get his average, and that is the way three-fourths or more of the medical colleges do. He may know nothing about surgery, physiology and yet average enough to make sixty or seventy-five or the passing point. If the faculties of the medical colleges would adopt a high enough standard, and conscientiously carry it out, it would make no difference how many medical colleges

we had. Neither the profession nor the public would suffer. When students knew they could not graduate unless they were competent, very many would never undertake it.

If men wish and delight in teaching medicine for nothing, that is their own lookout and nobody else's business, if they do it *well and thoroughly*. Honest men are found every where and honest work and thorough work can be done in any State. The cities have not all the brains and unless as Willard Parker said "unless they were recruited and reinvigorated by country brains they would go to seed."

THE IGNORANT USE OF MEDICAL TERMS.

The attempted use of technical medical phrases by persons otherwise well informed, and by ignorant persons as well, is a matter of surprise in the first case, and frequently a source of merriment in both. In localities where coroners are not educated physicians, the official who presides over the "Coroner's Inquest," confuse and amuse the public when publishing the cause of a fatality by saying it was due to "constriction" of the brain, when the term compression would have given an accurate description of its nature.

The boy of an inquisitive turn of mind, whose eyes were exploring the forbidden recesses of a doctor's office, chanced to discover a human cranium, ventured to question the good doctor whether the foramen magnum "was the place we hawked up through." Another youth of tender years, who took great pleasure in telling his boon companions how his mother cured him of the itch by the application of diabolical acid, was as oblivious of his technical error as was the good widow whose son perished from acute inflammation of pulmonary air cells by fondly repeating to her friends how he died of "ammonia."

An incident, which happened in the office of an eminent metropolitan practitioner, presents rather forcibly the ludicrous side of this topic. A young woman of prepossessing appearance and strikingly beautiful, a vivacious society woman of the "four hundred," who prided herself on her intellectual and conversational attainments, while crossing the street, on a slippery afternoon, lost her footing

and falling backward struck with great force on the coccyx. She was somewhat stunned by the shock of the fall, but was assisted to her feet by a gallant policeman, who exclaimed in genuine sympathy, "and shure mum yeze must have brucken yuen bone, for I see the print of yourself on the flaggin." On recovering herself, her suffering was so acute, she was convinced of the correctness of the diagnosis made by the Celtic official, who ordered a cab and she was driven to the office of her physician. With difficult step she entered the reception room and asked to be immediately admitted to the doctor's presence in advance of many who were waiting, and was accordingly ushered in by she servant. The doctor observing her slow locomotion and extreme pallor of countenance, received her with courteous solicitude, and asked if she was ill. With suppressed emotion and pathetic accent she exclaimed: Oh! doctor, "I am dreadfully injured, and am certain I have broken my sternum. Do you think it will kill me?"

MEDICINAL TREATMENT OF INSANITY.

There is a widely prevalent idea that medicine is of very little value in the treatment of insanity. This is far from correct, and is fraught with much harm. To be sure, there are no specifics for this affection. There are, in fact, very few diseases for which *materia medica* stands ready with a specific to be administered as soon as a diagnosis is made.

Were malarial fever and syphilis excluded, there are no other diseases for which any remedy is considered a specific. The specific action even of quinine and mercury respectively in these diseases is disputed by some men whose opinions are worthy of attention.

By means of careful and scientific research, a flood of light has, within the last half a century, been thrown upon mental diseases. We now know that insanity is the legitimate result of some pathological condition in the brain—some structural changes have taken place. These changes are often so obscure, and effect the minute cells only, that they present no macroscopical divergence from the normal. In other cases even the most expert microscopist will fail to detect satisfactory conditions to account for the grave distur-

bances observed in the functions of the brain. The changes may not be in the minute or gross structure of the cells but only in a disturbance of their normal arrangement. The battery may be in working order, but some of the wires are down. A fuse may be burned out somewhere and the proper connection cannot be had, or an operator at some station may be out of sorts and messages are not received or transmitted. An operator may be sick and prevents messages both in receipt and transmission.

There are so many places and ways in this complicated apparatus which we call the nervous system, for abnormal changes to occur, that we are amazed that it should ever all be in perfect working order at the same time.

Just as in all other diseases and departures from the normal, nature, the great repairer, is ever on the alert to keep things in harmony.

Sometimes the break downs come so fast, and of such a nature, that the *vis medicatrix nature* gets behind, in other words, gets more work on hands than can be done.

It is in just such cases, and under just such circumstances, that the physician steps in, and with the proper medicines assists nature to turn the tide from utter ruin and dissolution to health, and once more puts this complex machine in smooth working order.

There are no diseases that respond more readily to the proper remedies than those of the nervous system. Time in these affections is, perhaps, more valuable than in almost any other class of diseases. They become quickly chronic and incurable. Permanent structural changes take place rapidly, for the reason that the nervous system is more highly organized and more finely tempered than any other part of the human organism.

When the battery is exhausted it must be replenished with properly selected and administered nerve tonics. When the conduction is faulty the conducting wires must be looked after and obstructions removed. When too much nervous energy is being produced, more than can be normally utilized, the battery must be weakened by sedatives. When some local transmitter is disarranged it must be repaired.

Physicians are too prone to stand in

awe in the contemplation of this complex apparatus when it has slipped a cog and become deranged.

It may be safely asserted that the two common opinions that medicine can exert no beneficial influence on insanity is the result of ignorance.

CHLOROFORM IN LABOR.

To the parturient woman no greater blessing was ever bestowed than chloroform. When properly used there is not only no danger, but the patient ought to make a more speedy convalescence.

Why? because she is saved from the shock caused by the head passing over the Perineum and the great stretching at that time necessary to give birth to it. As a rule we oppose the use of chloroform until we think the head will be born in eight or ten more pains. It is rarely ever necessary to abolish consciousness entirely. Our mode of administering it, is to take a towel and make it in the form of a hollow cylinder, *not cone* fashioned with one end closed, pour a half teaspoonful on one side of the towel and about two inches from the end and when she feels the pain coming on to place it over her nose and mouth and let her inhale it so long as pain lasts and then remove it. The hand holding the towel should hold it so as to keep the upper end open all the time, the thumb of the hand on the outside of the towel and the fingers of the hand in the inside of the towel. This mode of administering chloroform is almost as good as with Esmarch's inhaler. and it takes very little of it, when the towel is removed we close it so as to prevent the evaporation of the chloroform.

When the child is born, the patient usually drops off into a sleep and she has suffered no shock. Patients have died from shock alone, and when that is eliminated there should be no question about good having been done.

During the first stage and the greater part of the 2nd stage we rarely ever give it. If the "pains" are too frequent and hard to bear at that time, we are in the habit of giving hypodermically $\frac{1}{4}$ gr. of morphine and $\frac{1}{150}$ of Atropia, which will as a rule diminish the frequency of the pains, and make them more effective and at the same time blunt the sensibilities, and quiet the nerves of the patient.

Many physicians object to the use of chloroform in Normal Labors and permit the woman to suffer. To my mind they can give no satisfactory reason for so doing. We can amputate a finger or perform other surgical operations without any anæsthetic. But who wants to do such a thing.

The stretching a Primipara undergoes in giving birth to a child, causes in many instances agonizing pain, and to permit her to bear that, when it could be entirely eliminated, is a species of cruelty that ought not to be tolerated, when it can be abolished without danger to either mother or child.

The objections to its use, or at any rate those most usually urged, are that it delays labor, that hæmorrhage is more liable to occur after its use, &c. If used properly it does neither.

There are patients who cannot take it at all, we have had them, but they are precious few and far between. The Doctor is supposed to have common sense and will stop as soon as he sees it is contra-indicated and use morphine or chloral as a substitute, where a pain killer is indicated.

My objections to giving it in the first stage is that it will often delay labor at that time and if the patient is nervous and bears the "pains" badly a hypodermic of morphine and Atropia will do all that is necessary. It sometimes delays it when given in the early part of the second stage, but when the head reaches the Perineum, if given as mentioned above there is no delay. There is less danger of a rupture of the Perineum when it is administered because it relaxes it.

If the patient objects to take the chloroform we never insist upon it, but when it is left entirely with us we rarely fail to give it, when the head is passing over the Perineum.

RABID ANIMALS.

At Bradshaw, South Central Nebraska, a mad dog has been on the rampage. Bit several other dogs, which in turn attacked everything in their path, biting a number of horses and cattle, also attacked a little girl nine years old. By advice of the family physician the little patient was taken to the Pasteur Institute, Chicago for treatment, where she will remain

several weeks. A dog affected with Rabies it seems from the experience of those who hunt down these animals goes along the road in a straight beaten path, turning neither to the right nor to the left, snapping with one bite at every thing crossing its way. From an etiological point of view Rabies is unquestionably a specific contagious disease caused and propagated by an unknown specific poison, and placed in the list of those diseases for want of a better name. Rabies seem to belong to the same class of diseases as erysipelas, anthrax, &c., in that it depends for its transmission upon inoculation into the subcutaneous tissues of the animal body derived from an infected animal, dog, cat, fox, wolf, horse, skunk, the ruminants, swine. It is not definitely known that other species of animals are capable of communicating the infection. The virus is contained in the saliva, and other glandular secretions, in the blood, in the substance of the nervous structures and in all the tissues of the body. Fortunately not all those bitten by a rabid animal take the disease, owing perhaps to the extent of the bite, and protection of clothing. The period of incubation is not modified by treatment, it is found that in seventeen per cent of all cases of Rabies the period of incubation is three months or over.

M. Pasteur of Paris, France, has made all the known authentic cases of undoubted rabies which had occurred in France to, and including his day. He collected data concerning 537 cases and states that the disease shows itself in the majority of cases at a period between the fortieth and sixtieth days after the reception of the bite. The Pathology of Rabies is not clear, and many observers have added to the existing confusion by recording the results of mistaken observation. It is certainly an acute and degenerative malady, special seat seeming to be in the higher nervous structures. The disease seems to depend upon the presence of a foreign element of bacterial organism the seat of the active lesion being the nervous system. All observers agree that there is evidence of molecular changes in the textures of the nervous tissues, the nerves of the part in which the original bite or inoculation occurred have been observed to present marked pathological appearances. The digestive system is the seat of more or less pathological

change, as might be expected, often congestion of liver and spleen. Rabies is a self limited disease, there is no known method of prolonging life. True Rabies is necessarily fatal.

COCAINE HABITUÉS.

The increase in demand for narcotic drugs and, *pari passu*, the increase in the number of habits of these drugs is so rapid as to be a menace to the future of mankind. All the narcotics weaken the intellect, pervert the moral nature, and ultimately paralyze the will power of their victims. None of them are so subtle and at the same time so powerful in their effects as is cocaine, the latest addition to the list.

The habitues of opium and alcohol may reform and recover after a long period of bondage—not so with the victims of cocaine. It seems to produce a more destructive effect than any of its congeners in infamy. It produces such severe and marked structural changes that recovery seems to be all but impossible. These disastrous results, of course, only follow its long continued use.

Not a few cases of insanity, produced by this habit, have been observed by this writer, and in none of them has a complete recovery taken place, and in nearly all the will power was left so weakened that a return soon followed to the old habit.

There seems to be a fascination about cocaine that is not possessed by any of the other narcotics. Its victims are dragged down to greater depths of depravity and immorality, and lose, to a greater extent, all sense of any moral obligation to themselves or to their fellow-men. It often seems that these miserable victims never experience a single higher feeling. They seem to be totally depraved, if such a condition can be reached by a human being. When not under the influence of the drug they are the most perfect pictures of abject misery.

Every city of any consequence possesses hundreds, and in very many instances, thousands, of victims of this damnable drug. I believe the world would be better off to-day had erythroxylum coca never yielded this alkaloid to the enterprising chemist.

There is no sort of doubt but what the evil effects arising from its use far outweigh the benefits derived from its introduction. Its escape from the medical profession has resulted in untold harm to mankind.

Let any one who thinks these statements too strong undertake a little independent observation. Let him first spend an hour or so each evening in some prominent drug store and see the wan faces and squalid poverty of the miserable creatures who straggle in clothed in rags, and first to spend their last cent for an article that holds them in unbreakable chains. They will steal; murder, or commit any crime to secure cocaine. They must have it. It is their life. Many of these cases reach a point where they have no desire to give up the habit.

This drug numbers among its victims the outcast of every grade; the elegant and refined ladies who grace the mansions of our cities, and whose wit and vivacity are the life of fashionable receptions. The lawyer, the statesman and the doctor are alike to be found marching in this mournful procession to a certain and fixed doom.

To curtail the malicious effects of this subtle agent every State should enact stringent laws regulating its sale and use. It should be impossible for any one to obtain it except on a prescription (to be filled but once) from a responsible physician. Its evil effects are so far reaching that the government must sooner or later take some steps looking to the protection of would be victims, both born and unborn.

THE CRUSADE AGAINST ANTITOXIN.

Every noteworthy acquisition to medical science has found opponents, and their criticisms are usually characteristic of the nation which harbors them. In *Germany*, the birthplace of *Behring* and serum-therapy, the opposition to the antitoxin of diphtheria, coming from *Virchow* and his pupils in pathology, has denounced the new teaching because it was not based on cellular pathology as a theoretical impossibility and a heresy. Besides, *Virchow*, feeling that his eminent position had been quite overshadowed by the work of Koch and his school, naturally could

not take kindly to serum therapy, because he had been the most noted antagonist of bacteriology. His theoretical opposition was, therefore, excusable; but his attempt to substitute the name of Aronson for that of Behring in his open though forced acknowledgement of the therapeutic value of the serum, was a way of belittling the work of a fellow-scientist thoroughly characteristic of numerous German savants, when their arguments have been forced to the wall by facts.

It is a pity, but a fact, that magnanimity is but seldom an attribute of the German professor, when handling a scientific opponent. Moreover Virchow's assistant, *Hansemann*, had had his say against antitoxin and has kept very quiet ever since, and the hysterical death-announcement of the child of the pathologist *Langerhans*, in the daily papers of Berlin, in which death is attributed to an immunizing dose of serum, has been nullified by the official post-mortem report of the county physician, Prof. *Strassmann*, which show that this child died from suffocation caused by the aspiration of vomited stomach contents. (Berlin Klin. Woch., June 8, 1896.)

In *England*, where more animals are slaughtered to feed its inhabitants than anywhere else, anti-vivisection and anti-vaccination societies flourished, and any noteworthy person (be he politician, parson or physician, or all three combined) raising a cry against a method employing the pricking of the human or animal skin will find a willing ear, provided this pricking is attempted on English and not exclusively on the dusky skins of the many tribes, constantly perforated by British bayonets. Nevertheless not every British physician will believe the statement of *Lennox Browne*, (Medical Brief, July, 1896,) that the mortality of diphtheria in England was but 30 per cent. during late years, while that of the European continent ranged from 41 per cent. to 60 per cent., and that "this difference must be due to some failure in hygiene or personnel in the medical or nursing departments." This same phariseal statement was forwarded by Englishmen against Lister's antiseptic surgery, and *Lennox Browne* exhibits to the world now (as *Lawson Tait* did before him) that peculiar insular, self-satisfied and over-fed state of British reasoning, which has caused England, during the last twenty years, to gently

but steadily slide to a back seat in scientific research.

Lawson Tait is a great surgeon, and, therefore, had a right to discuss antiseptics; *Lennox Browne* is a throat specialist and, therefore, ought to, in the light of modern hygiene, abstain entirely from treating diphtheria, for diphtheria is but in the very beginning a local disease, and belongs exclusively in the province of the general practitioner, who alone can impartially judge if a systemic infection can be cut short by a systemic treatment. The fact that *Lennox Browne* has to send his last tirade against antitoxin from the Thames to the Mississippi to find readers, is sufficient evidence that even his own countrymen are tired of his argumentation.

THE RELATION OF THE SPECIALIST TO THE GENERAL PRACTITIONER.

The relation of the specialist to the general practitioner of medicine, is such that should be accredited on friendly terms. The real true honest, educated specialist, no matter what branch of practice he is following, is welcomed to our ranks. It is he who has especially fitted and qualified himself in this special line, devoting his entire time, means, energy and talents to the branch of his selection. He has perhaps followed the general practice of medicine, many years before entering a special line of practice. We accord him a friendly welcome at our medical societies, and take pride and satisfaction in calling him as a consultant, having confidence in his skill and ability, to visit our patients, when the case so demands. In fact the honest scientifically educated specialist is an honor to the most noble of professions, that of medicine, his standing is far above the great army of so-called advertising specialists, who desecrate our fair land by unworthy methods, whose aim it seems to be to gull the gullible and impose upon the credulity of an unwary public. The day would be hailed by the medical profession if the latter class could be consigned to their own mediocrity. They belong to the class spoked of by Hypocrates when called in consultation with these self-styled doctors to visit a young lady residing back of the temple of Diana, afflicted with ardent fever, after the consul-

tation, the venerable father of modern medicine came to the conclusion "they are many in name but few in practice, it is hard to disgrace a physician who is already in disgrace."

Is it not so of late years that a specialty seems enticing to the average young medical man as he emerges full fledged, fresh from his alma mater, inexperienced, entering a specialty in anticipation, that those engaged in the general practice will send him patronage. Unsuccessful, sooner or later he adopts dishonorable or disreputable methods. Better be content to enter the general practice of medicine, for a time a field second to none in which to acquire experience and medical knowledge thus filling a useful position. To such an one success is a sure reward.

CYST AND ABSCESS OF THE VULVO VAGINAL GLANDS.

Anterior to the Hymen, or the carunculae myrtiformis will be found on each side an opening; this opening leads through a canal three-fifths of an inch long, which is the excretory duct of the vulvo vaginal gland. These glands are found on each side of the ostium vaginæ, and lie in contact with the transverse artery of the perineum, being separated from the vagina by an aponeurotic prolongation, lie between the superficial and middle layers of the ischopubic fascia accounts for the complete confinement of pus forming in them. The writer saw a case recently, the patient being a Russian woman, who had been confined about ten days previous to the call, no physician being in attendance at the confinement, which from the history of the case was slow and tedious. The mouths of both ducts on either side had become obliterated by the inflammation which was of an adhesive character. Retaining the secretion, and undergoing considerable enlargement, attended by some fever, and quite a chain of nervous symptoms, the tumor on either side was a hard fluctuating globular one, painful to the touch. Rest and poultices were recommended with constitutional treatment for a few days. When an Ether spray from an atomizer was used an incision was made near the mouth of the gland, on each side, quite an amount of thick pus

was evacuated. The gland was washed out with an antiseptic solution thoroughly with a small syringe, absorbent gauze was the final dressing.

An abscess of this gland is distinguished from a cyst by the presence of the ordinary signs of inflammation. When cystic distention exists without inflammation, the locality of the round mass rolling slightly under the finger without tenderness, will make the diagnosis clear. The duration of this inflammatory process, with proper treatment is on an average of about three weeks, if left to nature may last for months, or even years. Its peculiarity is it affects both glands simultaneously.

GONORRHOËAL RHEUMATISM.

Some of our authorities doubt the existence of this special form of rheumatism, that all rheumatic tendencies and rheumatic conditions are allied and similar, any practitioner of medicine of large experience can scarcely doubt the existence of this form of rheumatism though this form of rheumatism has no distinct pathological signs, it has certain peculiarities which distinguish it from ordinary acute rheumatism, these peculiarities may not be so marked in any single case as to necessarily attract notice though the observations of a series of cases by a careful practitioner could hardly fail to show the distinction. It has been supposed by some that the disease is rare in women, but experience has modified this opinion since it is an important fact that a gonorrhœal inflammation of any part of the female genital tract is sufficient to give rise to rheumatic symptoms. This form of rheumatism is divided for convenience into chronic, subacute and acute forms. A careful observer may note a rheumatism in a case afflicted with a gonorrhœa that has had a rheumatism at no other time, and again rheumatism accompanying all other attacks of gonorrhœa although the periods between the attacks may have been several years. It is believed, the articular inflammation to be of a more injurious character when a second or third attack occurs. The points of difference between this and the ordinary form, are, little fever, constitutional symptoms neither severe nor lasting, usually no sweating, urine unchanged, cardiac

lesions uncommon, sometimes inflammation of tendons and bursæ, few joints attacked, first joints affected, last to recover, recurs with a new gonorrhœa. Treatment should be directed to the local affections of the joints and constitutional. The antirheumatic remedies are of little or no avail, no means of treatment is entirely satisfactory, painting the joints with a preparation of equal parts of tr. of Iodine and Glycerine and envelope them with cotton and bandage, proto-iodide of mercury $\frac{1}{8}$ to $\frac{1}{4}$ grain three times daily, also two grains of quinine four times daily, has given better results in the hands of some than any other treatment.

BOOK REVIEWS.

A TREATISE ON SURGERY. By American Authors. Edited by ROSWELL PARK, M. D., Professor of Surgery and Clinical Surgery. Medical Department, University of Buffalo, Buffalo, N. Y. In two very handsome octavo volumes, comprising about 1,600 pages, with about 800 engravings, largely original, and about 40 full-page plates in colors and monochrome. Volume I. General Surgery and Surgical Pathology. Volume II. Special Surgery. Price per volume, cloth, \$4.50; leather, \$5.50. *Nat. Lea Brothers & Co., 1896.*

This work will be divided in accordance with the most modern views into two volumes, each of which will be sold separately. Volume I is now before us, Volume II will be issued very shortly. This, the first volume, contains the more general subjects of Surgical Pathology, the general principles and theory of Surgery. In preparing this treatise on Surgery, the Editor has secured the co-operation of our most eminent teachers in our leading colleges with abundant experience in private practice and in hospital clinics, and the distinguished names which adorn the several chapters of the work not only show how zealously this assistance has been rendered, but offer the best guarantee of the value of the teaching, embodied in its pages.

The advancement in surgical knowledge has been so great within recent years, that has rendered advisable a departure from tradition and the treatment bestowed on certain topics is therefore essentially new. This is the case, for instance, with the distinction everywhere maintained between hyperæmia and in-

flammation (i. e. infection). In this work a great many chapters have been inserted on subjects not hitherto discussed in general treatises on Surgery. Notably that on the Surgical Pathology of the blood. The chapters on auto-intoxications and on the Surgical Squelæ of Acute non-surgical diseases are also practically new. The importance of Bacteriology is everywhere recognized and its teachings are impressed upon almost every page.

In presenting the most recent results of research and experience, however, care has been taken not to neglect the vast amount of accumulated knowledge which is our heritage from the past, and under each topic will be found a complete and condensed account of theory and practice representing the science and art of Surgery in the advanced position of to-day. Hence these volumes will be serviceable in affording full practical information to the surgeon, and to the general physician whose duties frequently call for surgical knowledge.

That Park's Surgery will rapidly achieve a foremost position as a textbook is evident upon a glance at the appended list of contributors, showing that the work represents the methods of teaching developed in the leading medical colleges of the country:

William T. Belfield, M. D., Rush Medical College, Chicago; Arthur D. Bevan, M. D., Rush Medical College, Chicago; Herbert L. Burrell, M. D., Harvard Medical School, Boston; Edward H. Bradford, M. D., Harvard Medical School, Boston; Clarence J. Blake, M. D., Harvard Medical School, Boston; Charles Stedman Bull, M. D., Med. Depart. New York University; D. Bryson Delavan, M. D., New York Polyclinic; Frederic S. Dennis, M. D., Bellevue Hospital Medical College, New York; Duncan Eve, M. D., Med. Depart. Vanderbilt University, Nashville, Tenn.; James H. Etheridge, M. D., Rush Medical College, Chicago; John A. Fordyce, M. D., Bellevue Hospital Medical College, New York; Frederic H. Gerrish, M. D., Med. Depart. Bowdoin College, Portland, Maine; Arpad G. Gerster, M. D., New York Polyclinic; Hobart Amory Hare, M. D., Jefferson Medical College, Philadelphia; William A. Hardaway, M. D., Missouri Medical College, St. Louis;

James M. Holloway, M. D., Louisville Medical College and Kentucky School of Medicine; Charles B. Kelsey, M. D., Post-Graduate Medical School, New York; Robert W. Lovett, M. D., Harvard Medical School, Boston; Rudolph Matas, M. D., Tulane University Med. Depart. New Orleans, La.; Henry H. Mudd, M. D., St. Louis Medical College; Charles B. Nancrede, M. D., Med. Depart. University of Michigan, Ann Arbor, Mich.; Roswell Park, M. D., Med. Depart. University of Buffalo, Buffalo, N. Y.; Charles D. Parker, M. D., College Physicians and Surgeons, Cleveland, O.; John Parmenter, M. D., Med. Depart. University of Buffalo, Buffalo, N. Y.; Joseph Ransohoff, M. D., Medical College of Ohio, Cincinnati, O.; Maurice H. Richardson, M. D., Harvard Medical School, Boston; Chauncy P. Smith, M. D., Fitch Accident Hospital, Buffalo, N. Y.; Edmond Souchon, M. D., Med. Depart. Tulane University, New Orleans, La.

In point of richness and beauty of illustration Park's Surgery will mark a departure in surgical literature, the engravings and colored plates being largely original, and introduced wherever clearness and fulness of information can be aided by pictorial effect.

The publishers have produced the book in a form worthy of its contents and we heartily congratulate Dr. Park and his colleagues on the production of a work in which beauty and practical utility are so happily combined.

MINOR SURGERY AND BANDAGING. By HENRY R. WHARTON, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (3d) edition. In one 12mo. volume of 594 pages, with 475 engravings, many being photographic. Cloth, \$3.00. Philadelphia, Lea Brothers & Co., 1896.

The title of this work is a misnomer, for the work covers more than is usually included under its subjects, and details many special surgical procedures clearly and authoritatively. This is the third edition of this book in a short time which is plenty of proof that its contents are valuable and its usefulness meritorious. The author has presented in a concise manner a description of the various bandages, surgical dressings, and minor surgical procedures which are employed in the practice of surgery at the present

time. The preparation and application of the dressings now most commonly used have received full consideration. The article upon Bandaging is fully illustrated with cuts, which will prove of value as furnishing an accurate representation of the most important bandages used in surgical practice. The article upon Fractures and Dislocations is an excellent one. Many new cuts here appear.

The work also contains short articles upon Tracheotomy, Intubation of the Larynx, the Ligation of Arteries and Amputations, Exsections and Resections, Trephining, Operations on Nerves and Tendons, Tracheotomy and Laryngotomy, Intubation, Operations on the Kidney and Colon Lithotomy and Osteotomy. This description is good and will greatly increase the value of the work.

The work is nicely printed and profusely illustrated and is today the most satisfactory manual obtainable upon the subject of which it treats so admirably.

PTOMAINS, LEUCOMAINS, TOXINS AND ANTITOXINS: or the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry, and FREDERICK G. NOVY, M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (3d) edition. In one 12mo. volume of 603 pages. Cloth, \$3.00. Philadelphia, Lea Brothers & Co. 1896.

This work embraces every thing of importance upon the subject of ptomains and leucomains. The above sentence includes a great deal, for within the past ten years much has been said and written concerning the basic substances formed during the putrefaction of organic matter, and those which are produced by the normal tissue, changes in the living organism.

It is a well recognized fact that those diseases which cause the greatest mortality and consequently are of the greatest importance are in reality cases of poisoning; that pathogenic germs are living poisons and that every infectious disease is actually an intoxication.

In the present volume will be found a systematic exposition of etiological, preventive and curative chemistry.

This is the third edition of this work which has been thoroughly revised throughout and greatly enlarged. Ample consideration is given to the new subjects

of Toxins and Antitoxins which has assumed great and merited practical importance of recent years. The work is recognized as standard authority. The book appears in excellent style.

A TREATISE ON OBSTETRICS. For Students and Practitioners. By Edward P. Davis, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one very handsome octavo volume of about 700 pages, with about 200 engravings and many full-page plates in colors and monochrome. Lea Brothers & Co., Philadelphia and New York, 1896.

Professor Davis' new work will afford students and practitioners a concise yet comprehensive guide to the whole art of obstetrics in its most modern development. The author is widely known as a teacher, writer and obstetrician of unsurpassed ability. His thorough acquaintance with foreign literature has enabled him to place at the command of his readers the best material derivable from the vast sources of obstetrical knowledge in the old world, and his own ripe experience and metropolitan facilities have been equally well utilized in the preparation of the volume at hand. A marked and attractive feature will be found in the exceptionally rich series of engravings, among them being a large number of photographic reproductions of obstetrical scenes carefully selected in view of the amount, vividness and permanence of the knowledge which can be so well conveyed in no other way. The book will likewise be embellished with a number of most instructive colored plates. It will be found more comprehensive than ordinary treatises, as it deals with those cognate subjects best handled in close connection with their obstetrical precedents, such as the repair of lacerations and injuries, the care of the mother, of the infant, jurisprudence of midwifery, etc. A foremost place is confidently anticipated for it both as a text-book and as a work of reference for practical use.

LITERARY NOTES.

THE SEPTEMBER ATLANTIC.—The Atlantic for September contains two articles that have a timely bearing on the political

situation. In "The Problem of the West," Professor Frederick J. Turner, of the University of Wisconsin, traces the growth of Western characteristics and opinion historically and logically. If there is a sharp sectional feeling, he shows that it is not a feeling as between two peoples, but only as between two neighborhoods. The man of the Middle West is the type of the true American citizen. This very thoughtful and practical article is followed by the historian John B. McMaster's article on "The Election of the President."

There are two articles suggestive of the most startling chapter perhaps in human history—the story of the unparalleled success and effect of Uncle Tom's Cabin, told by Charles Dudley Warner, immediately followed by an article on "The Awakening of the Negro," by Booker T. Washington, who explains the revolutionary work done at Tuskegee, Alabama. He shows, too, how the Tuskegee method of teaching thrift strikes at the very root of all the misfortunes of the South, and has in it the seeds of a revolution for whites as well as blacks.

The fiction in this number consists of the first third of Mrs. Kate Douglas Wiggin's novel, "Marm Lisa,"—the most elaborate story yet undertaken by this most popular of our living writers; the second installment of Mrs. Catherwood's "The Spirit of an Illinois Town" fulfills the promise of its opening chapters and takes the reader into the midst of vivid frontier life with its quaint characters and unusual situations. Sarah Orno Jewett, who is undoubtedly the most successful portrayer of New England life, contributes further chapters of "The Country of the Pointed Firs." The delightful sketches which have appeared under this title from time to time, while not constituting a connected story, have dealt with characters and scenes familiar to Mrs. Jewett's readers, and in them the author has been seen at her best. The conclusions of "Athénaïse," Mrs. Chopin's delightful story of Creole life, together with the last installment but one of Henry James's powerful novel, "The Old Things," complete the fiction.

Bradford Torrey writes of "A Day's Drive in Three States," describing in a delightfully humorous fashion his experiences while driving through that corner of Georgia which lies between

North and South Carolina. He breakfasts in South Carolina, dines in Georgia, and sups in North Carolina. He talks with his colored driver, describes the people met by the way, and writes with a true naturalist's enthusiasm of the birds he encountered.

The life of girls in a New England Factory village is the subject of a paper by Lillie B. Chace Wyman. Mrs. Wyman has made a prolonged study of girl life under these conditions, and draws a striking picture of it. She has chosen a New England factory village, reasonably prosperous and inhabited by reasonably intelligent people. She draws from her personal experience, and writes in sympathetic fashion of the needs of the working girls as she has found them.

A discriminating paper on "The Teaching of the Spirit of Literature," by W. P. Trent, Professor of Literature in the University of the South, a sketch of travel entitled "Some Yorkshire Good Cheer," by Eugenia Skelding, and two sonnets, by Arthur S. Hardy, with exhaustive book reviews and the usual departments, complete the issue.

LIPPINCOTT'S MAGAZINE FOR SEPTEMBER, 1896.—The complete novel in the September issue of Lippincott's is "A Marital Liability," by Elizabeth Phipps Train, well known as the author of "A Social Highwayman." Its hero chivalrously bears the punishment of another's crime, but ultimately gets his deserts, which are high.

"A Hard Answer, and How it Turned Away Wrath," is a brief but vigorous Texan tale by Alice MacGowan. Henry A. Parker tells "How Hawkins was Regulated," which was in a manner wholly unexpected by the Regulators.

"A Painting of Apelles," of which Wolf von Schierbrand writes, is supposed to be secretly preserved in a monastery on Mount Athos, and to be copied by a Greek artist, who had to become a monk to obtain access to it.

Jean Theodore van Gestel, the Dutch explorer in the East Indies, describes "A Tiger Hunt in Borneo," which had no tiger in it, but was not the less dangerous for that.

"The Natural History of Fiatism" is acutely studied by Fred. Perry Powers,

in a way more complimentary to the advocates of free silver than to their opinions. They and their ancestors—all native Americans—he explains, have accomplished such marvels in upbuilding a new country that they think they can do anything. "What have we to do with abroad?" What are the laws of Trade and the lessons of the Past to us? Let us have our own finance, our own political economy, our own ideas and arrangements about everything, irrespective of the Old World and its effete monarchies.

Dr. A. L. Benedict has an interesting and instructive paper on "The Life of a Medical Student." Theodore Skinton details the "Advantages of International Exhibitions," and the late Col. John A. Cockerill, whose journalistic fame was won in cities, tells "How to Conduct a Local Newspaper."

"Heroines, Past and Present," are lightly handled by Nina R. Allen. For "Company" Dr. Charles C. Abbott evidently has little liking.

The verse of the number is by Mary E. Stickney, Clinton Stollard, and Robert Gilbert Walsh.

AN OLD FAVORITE WITH NEW FEATURES.—It is announced that the publishers of the old standard eclectic weekly, Littell's Living Age, founded by E. Littell in 1844, are about to introduce several new and valuable features in their magazine. The most important of these is a Monthly Supplement, given without additional cost to the subscribers, which will contain Readings from American Magazines, Readings from New Books, and also a list of Books of the Month.

It is also proposed to extend their field by giving occasional translations of noteworthy articles from the French, German, Spanish and Italian reviews and magazines.

A year's subscription to The Living Age, will then include more than thirty-five hundred pages, filled with the best things in current periodicals and general literature, and making four large volumes, for only six dollars.

Each of the weekly numbers of the magazine contains sixty-four pages. Fiction, travel, essays, biography, poetry, and a wide range of general discussion and information are included in the contents.

To new subscribers remitting before Nov. 1st (in which month the first of these new features will be introduced) will be sent gratis the intervening weekly issues from date of payment. Address,

THE LIVING AGE CO.,
13 1/2 Bromfield St., Boston, Mass.

APPLETONS' POPULAR SCIENCE MONTHLY FOR SEPTEMBER, 1896.—In Appletons' Popular Science Monthly for September, Mr. David A. Wells, continuing his articles on the Principles of Taxation, considers its definition, object, and sphere. In a humorous paper entitled *The Sympsycho-graph; a Study in Impressionist Physics*, President David Starr Jordan satirizes the conclusions and claims concerning certain visionary matters, mental and moral, which some enthusiastic persons are disposed to infer from Röntgen's discovery. Important physiological information is given in clear terms in Mr. J. E. Humphrey's *Some Modern Views of the Cell*. In *The Vivisection Question*, Prof. C. F. Hodge makes a strong argument for the value of the knowledge to be gained from physiological experimentation. Mr. Sydney G. Fisher discusses the relations of Immigration and Crime. Prof. W. R. Newbold's diagnosis of Illusions and Hallucinations is illustrated by the citation of several incidents of experience. Prof. J. A. Udden gives what to the majority of readers will amount to a revelation of the magnitude and force sometimes attained by Dust and Sand Storms in the West. Clarke de Graffenried, in an article on that subject, presents as "Debts" of the "New Woman" what the emancipated ladies of the present owe to their humbler sisters who have toiled in the past and to those who are now toiling. Mrs. Le Plongeon gives an account of *The Potter's Art among Native Americans*. Other articles of a lighter class and thoroughly readable and enjoyable are given on *Social Insects* (L. N. Badenoch), *The Banziris of the Congo Basin*, *A Cambodian Primary School*, and *Dogbane and Milkweed*. The biographical Sketch is of Samuel Luther Dana. The Editor's Table is devoted to an English bishop's appreciation of Prof. Huxley, and to contradicting Lord Kelvin's depreciation of his scientific labors as "failure."

Appletons' Popular Science Monthly

for September will contain an abstract of the recent studies of Enrico Ferri on Homicide among both savage and civilized men, with some consideration of "crime among animals."

New York: D. Appleton & Company.
Fifty cents a number, \$5 a year.

The North American Review for August opens with a masterly paper by Sir Walter Besant on "The Future of the Anglo-Saxon Race," in which he traces the rise and progress of the Anglo-Saxon race, points out the characteristics which have made it so successful, and discusses the means by which its position of commanding influence and power in the world may be maintained and strengthened.

The North American Review for September opens with a most interesting paper by His Excellency, Sir Alfred Moloney, Governor of British Honduras, entitled "From a Silver to a Gold Standard in British Honduras," wherein is described a financial transaction unique in the history of currency, and the material benefits derived from an establishment of a country upon a gold basis.

John M. Stahl, Secretary of the Farmers' National Congress and Pan-American Agricultural Parliament asks in the September number of the North American Review, "Are the Farmers Populists?" contending that American farmers, as a body, have always by their votes proved themselves solicitous for the national honor, and that they will do so again in the approaching election.

In the September Review of Reviews the editor discusses different phases of the Presidential campaign—especially the revolt of the gold-standard Democrats, the attitude of Eastern wage-earners toward Mr. Bryan, and the spread of free-silver doctrine among the farmers. Another important topic of discussion in the department of "The Progress of the World" is Lord Salisbury's Venezuelan proposition, in connection with the general scheme for a permanent tribunal of arbitration. The editor also covers most of the striking developments of the month in British and European politics.

Dr. P. Playfair has compromised his case with Mrs. Kitson by paying \$50,000 including costs.

Every Day Mistakes, &c.

Before the Michigan State Medical Society, at Mt. Clemens, a paper was read by Dr. L. J. Lennox, of Detroit, Mich., entitled *Every Day Mistakes in Obstetrical Practice and Their Results*.

The object of the paper was evidently to draw the attention of the profession to an evil which exists to an alarming extent, of which we are all well aware, yet take no decisive or concerted steps to prevent. The paper does not go into detail, merely mentioning the most common mistakes made, some through ignorance, and some through indifference, but by comparison of the obstetrical practice of to-day (by the majority) as we know it to be, shows very plainly why so many poor suffering women have to place themselves in the hands of the gynecological surgeon.

The paper also points out the fact that such being the case, our silence on the subject is endorsing it, and we are individually responsible if we do not insist upon such legislation as will regulate obstetrical practice and hold personally responsible the accoucheur who will leave a lacerated perineum unrepaired or neglect strict asepsis, be he or she midwife or doctor.

He also draws attention to the necessity of impressing upon the laity the importance of skilled treatment of the parturient woman, and the consequences which are sure to follow the employment of filthy and ignorant midwives or unskilled or non-conscientious physicians, which knowledge, on the part of the laity, would tend to result in the employment of competent obstetricians and the co-operation and assistance of the people's representatives in giving us such legislation as we so much need.

The paper is published in the *Physician and Surgeon* for July. We would like to hear more on the subject.

The Treatment of Extensive Burns.

The chief principles in the local treatment of extensive burns are to subdue the severe agonizing pains; to protect the raw surfaces from the irritating influence of the air and to prevent the development of septic conditions. To accomplish these therapeutic aims various methods have been recommended, but none

has justified the expectations of those who have proposed them. Dr. Paul Walton a surgeon to the City Hospital at Ghent, has, during the past year adopted a method which has proved extremely efficient in a considerable number of burns covering large portions of the body. This in brief is as follows: Disinfection by means of antiseptic solutions is avoided, as they are either inert, irritating or toxic. Repeated washing with warm water, without much friction, opening of blebs, removal of eschars, frequent and prolonged warm baths, and drying of all burned parts with absorbent cotton, finally dusting the entire area with aristol, which by virtue of its extreme fineness is uniformly and application of a dressing of sterilized gauze and cotton—this constitutes the treatment. To secure strict asepsis it is sometimes necessary to clean the surroundings of the wound with soap and brush and remove the fatty matter with ether and alcohol. In cases of very extensive burns it is advisable to keep the patient in a bath during the entire period of disinfection. By the use of aristol septic infection was entirely prevented in thirty cases treated by this method. If aristol be employed in the form of the powder, at each change of dressings the surroundings should be carefully cleansed; all epithelial shreds and crusts being removed. If the remedy be employed as an ointment the healthy parts surrounding the burned surface should each time be cleansed with ether. In twenty cases of less extensive burns of the first and second degree the application of Aristol in powder form with a light dressing gave extremely prompt and satisfactory results; while in the sluggish ulcers occurring after scalds from hot water, this drug also stimulates granulations and causes cicatrization,

Rupture of the Uterus.

At the meeting of the American Association of Genito Urinary Surgeons Dr. A. T. Cabot read a paper upon Rupture of the Urethra.

After pointing out the advantage of at once cutting down upon the rupture and of suturing the canal, he reported five cases in which this operation was employed. All of the cases made quick and complete recoveries, and in three of them that were examined from three to five

years after the accident, the urethra had remained in good condition without the formation of a tough stricture. In two of these cases there was no evidence that any stricture at all had resulted.

From this study of the subject Dr. Cabot draws the following conclusions:

1. In cases of ruptured urethra, immediate perineal section with suture of the urethra should be practised.

2. By this procedure not only do we greatly lessen the danger of urinary infiltration and abscess, but we also in a large proportion of cases, may hope to prevent the formation of close intractable strictures.

3. In an early operation the search for the posterior end of the urethra is much easier than it is later. The hemorrhage from the branches of the artery of the bulb serves as a guide to that end of the canal.

Traumatic Diseases of the Spinal Column.

Henle (Henle in Quarterly Medical Journal) gives notes of four cases of non-tubercular disease of the spine following traumatism. Kümmel first drew attention to these cases in 1891. Since then few have been published, and the pathology of the affection is by no means settled. The form, a traumatism which has been present in the various cases, has either been a direct traumatism on the spine or a twist of the spine or a bending. The clinical history as first described by Kümmel is as follows:—In most cases the traumatism has been slight; two or three days later the patient complains of pain in the affected part of the spine. This disappears, but weeks, or it may be months later, the pain again comes on in the spine, often in the form of neuralgia in the intercostal nerves, and there are slight motor disturbances in the lower limbs. At the same time the spine bends and becomes the seat of a kyphosis or a gibbosity. The disease mostly affects the dorsal spine, and the affected vertebræ are painful on pressure. On suspension the kyphosis disappears, but the gibbosity remains. This mobility and disappearance of the kyphosis distinguishes it from arthritis deformans. Henle has only seen one case of this type, but his cases also show what Kümmel's cases showed, viz.,

the long time that may elapse after the traumatism before the progressive yielding of the spine appears; this may occur after a comparatively slight traumatism. There are thus three stages: (1) a traumatism which may be slight, and pain after it; (2) disappearance of the pain; (3) after a longer or shorter time re-appearance of the pains and yielding of the spine. Kümmel thinks, and König supports his views, that in these cases we have to do with fractures and longitudinal fissures, and that dislocation supervenes from yielding of the soft callus by the superincumbent weight of the spine. One of Henle's cases involved the cervical vertebræ. The softness of the bone which is noticed in all these cases he thinks is present at the beginning and is the cause of the malady. The only disease with which it may be confounded is tuberculous spondylitis, except in the rare instances of a gummatous process or the gibbus-formation due to a tumour. The points to which attention must be directed are: the history; absence of tubercle in other organs; the acuteness of the process and the absence of the sharp bending which is so often present in gibbus tuberculosus. The prognosis is favourable as regards an arrest of the process, but the deformity remains, and some of the symptoms due to involvement of the cord. The best treatment is rest, and then the wearing of a well-fitted corset.

Treatment of Lead Colic by the Galvanic Current.

Drs. Labadie, Lagrave and Regnier. Four cases of severe lead colic with very obstinate constipation have been treated by the authors with successful results; in each case the pain has been at once relieved, and in three of the cases a large evacuation has quickly followed and the recovery of the patient been uninterrupted; in the fourth case the motion was not passed till after some time. The method adopted is as follows:—A large zinc plate electrode is placed over the abdomen and a rectal electrode passed into the anus; this is connected with a syringe, so that a stream of water can be kept constantly flowing round the rectal electrode to prevent injury to the bowel. The abdominal electrode is first connected with the negative pole, and a gradually

increasing current passed through until 20 to 40 milliampères is reached. It is then reduced to zero, and the current reversed, when the same process is repeated. This time the current is interrupted at intervals at such a strength that it produces a contraction of the abdominal muscles. The current is then gradually reduced until it is at zero, and the "galvanic injection" is complete. The bowels usually act very powerfully in a short time, and the pain at once disappears. In less severe cases where it is only requisite to stop the pain, a more simple method of applying the constant current to the lower dorsal vertebra (+ pole) and pit of the stomach (- pole) 5 to 10 milliampères, for ten to fifteen minutes acts speedily and satisfactorily.

The Conditions which Render Preventive Operations Justifiable.

We quote the following from Maclaren: "I look on preventive surgery as the highest development of our special occupation. Consider for a moment what it necessitates: such a knowledge of the state or disease as enables us to predict its course at some probably distant time. We must be able to say to a patient. If you allow what now exists to continue you will experience certain definite consequences, or you run risks which can be expressed in figures. Then we must be such masters of our pathology that we foresee all the states we may encounter; we must be fit to form an estimate of the local condition and must have present in our minds all the possible deviations from it. Our technique ought to be perfect, for though mistakes and oversights may sometimes be excusable in operations of emergency, in preventive operations they should have no place. In addition to perfect knowledge and highly organised and developed skill, there is need in a pre-eminent degree for what has been named surgical instinct, but which is truly nothing but the capacity for taking a rapid and exhaustive survey of the patient and his surroundings, summing him up inside and out and judging of his capacity for standing shock and for repair. A preventive operation should be devoid of risk to life both at the time and during the healing stage. It seems to me that

this work is only justifiable under this limitation. I do not think that we ought to suggest to anyone that for the sake of a future good he should undergo what may kill him at once. In proposing such an operation we ought to be prepared to say that it is devoid of risk—that is, of course, of risk additional to that of the original disease. If we understand and perform our work well we are at the present day in a position to do this. We know what we shall interfere with, that not any organ essential to life will be totally disabled. Where cavities are opened we know what is necessary to close them securely and safely. And our present methods enable us (with just such possibility of failure as is inseparable from human frailty and human error) to ensure primary healing of our wounds and the absence of those local and general infective diseases which were in times past the curse of surgery. Not only should a preventive operation be safe, but it should not involve much suffering. It has been said that no one makes a good physician who has not himself been ill; till he has experienced in his own person the varying phases of anxiety, of depression, of hope, and it may be of fear, in his patient; nor can he estimate the value attached to his every word, action, and expression till he has gone through the process himself. Believe me, there is a horror in most minds, an anxiety which I think we can hardly appreciate till it comes as a personal experience, which we are apt to under estimate. Much of this is due to a dread of the unknown quantity pain. If preventive surgery is to take its true position we should recognise this, and by acting so that pain is absent, or nearly so, remove from the minds of men this natural objection to have their bodies interfered with. Of course, we no longer inflict pain during any operation. This has been a solved question for fifty years; and in this, the jubilee year of anæsthesia, I have thought it not inappropriate to call your attention to a development of surgery which hangs entirely on its use. We still, however, have longings after the perfect anæsthetic, which should be as portable, manageable, and pleasant to take as chloroform, as capable of long use as either chloroform or ether, and yet as safe and free from after-effects as nitrous oxide. For

minimising after-pain much rests with the individual surgeon. If he avoids by direction of incisions all unnecessary injury to nerves, if he makes all his manipulations as gently as possible, if he leaves his wound free from tension either by tight sutures or contained blood-clot, if he secures the most restful position, and above all things if he ensures for his wounds a normal healing, he may do extensive operations with exceedingly little after-pain. Indeed, under those conditions the patient's usual answer to the question, 'Have you any pain?' is 'No; I just feel the place a little sore.' It should so be."

Vesico-Vaginal Fistula.

Holländer exhibited, at the Berlin Obstetrical Society in June, a patient who had suffered severe damage during labor twelve years before, so that the vesico-vaginal septum was nearly destroyed. The urethra and sphincter urethræ were involved. Shortly after labor a plastic operation was performed, the cervix being fixed into the bladder. The posterior lip of the cervix was united to the remains of the posterior wall of the urethra. After the operation urine could be fairly retained. For twelve years the patient menstruated through the bladder. Mackenrodt believes that it is always best in such cases to dissect away the cicatricial tissue behind the fistula, and then to suture the upper part of the vagina to the remains of that canal close to the vaginal orifice. Fenomenoff operates for this obstinate affection on very definite principles. In the first place the fistula must be accessible or else it must be made so by lowering the uterus, by wide vaginal incisions, or even by symphysiotomy or abdominal section. The most dexterous manipulator is apt to fail if he tries a plastic operation on a fistula almost out of his reach. The next principle, which Fenomenoff carries out in practice, is to cut away nothing, but to make flaps. A horizontal incision is made across the fistula, its extremities being prolonged as far outwards as possible. The remainder of the operation is simple flap splitting. As a rule a single flap can easily be made out of the vaginal mucosa on the uterine side of the fistula; inferiorly it is cut vertically for an inch or so below the fistula, and to make two vaginal flaps.

Prolapse of the bladder is no hindrance, but, on the contrary, a great advantage. The splitting of the two layers of the vesico-vaginal septum is much easier when there is cystocele. In any case experience shows that after the bladder is well dissected from the vagina the vesical tissues may readily be closed, though with the vaginal tissues perfect, closure is more difficult or even impossible. The vesical wound is carefully closed with interrupted catgut sutures, which are tied and the ends cut short. Then the vaginal flaps are united. Very bad fistulæ have been closed by Fenomenoff's method, though in some cases the operation had to be repeated several times.

The Treatment of Consumption.

Doctor Playter, in his paper read before the Montreal Medical Society, first referred to the two principal causes of phthisis, the seed and the body soil. By nearly all physicians the bacillus was recognized as a cause, but a number of them believed it to be but a consequence. The truth lay between the two views. The bacillus would not grow and multiply in the body unless the tissues were in a defective, practically diseased state; but it is indispensable to the formation of tubercle.

The diseased state, Dr. Playter claims to have clearly shown in his recently published book, is caused by toxins produced by accumulations of the waste products of combustion, due to defective respiration. Hence more out-door air is the universal first remedy. The bacillus is probably, originally, a benign organism, and like some other microbes is rendered virulent and pathogenic by its environment. In some phase it may grow in the open air, like the bacillus anthrax, completing its "developmental cycle" outside the animal body, although, as a bacillus, flourishing best at a temperature above 100° F., as in bovine animals or a "feverish" lung.

In treatment, the doctor depends on a "trinity of remedies:" Pure cold air, nourishment in accordance with the digestive and assimilative powers, and attention to the skin to aid the respiratory function. Pure, dry, cold, sparkling, sunny atmospheric air, with its highly "vitalized" oxygen, is the best of all.

remedies, and nearly all cases improve under it.

At the Falkenstein Institute (Germany) the cold winter air allowed to flow through the bedrooms of the patients all night "quiets the cough, lowers the fever, arrests the night-sweats, restores the appetite, and retards the course of the disease." The colder the air, the better; the more oxygen it contains, bulk for bulk, the more it acts as an antiseptic; the more it expands when it has been inspired and in expanding dilates the air cells or chambers of the lungs; and the more it must tend to cool the over-heated lung tissues, rendering them less favorable for the multiplication of bacilli.

Dr. Playter is making preparations for rendering pure, filtered air cold, by means of a freezing mixture, to be inhaled by patients at his sanatorium.

Diseases of the Accessory Cavities of the Nose.

In the August number of the International Journal of Surgery is an article by Dr. G. M. Peavler, of Bristol, Tenn., on disease of the accessory cavities. He considers chronic, persistent discharges from the nasal cavities an evidence of disease in some of the accessory sinuses. That such chronic discharges never come from the mucous membrane of the nasal fossa; for the ordinary forms of chronic rhinitis are not accompanied by a purulent discharge, and when pus is found coming from the nasal cavities it may be accepted as conclusive evidence of diseased bone.

Of 35 cases of sinus disease occurring in the writer's practice, there were 24 cases of disease of the antrum of Highmore, 10 cases of ethmoid disease, and one case of disease of the sphenoid cells.

Mucous polypi were present in twelve of the thirty-five cases, or about 34 per cent. of the whole number. It was readily supposed that this was not accidental, but that the empyema stood in a causative relation to the intranasal tumors. It would appear that polypi are most likely to be found where disease has existed for some time, and that they are found associated with disease of the ethmoid cells more frequently than elsewhere.

The treatment of these diseases, he claims, is mainly surgical. Expectant treatment in these cases can neither offer

the patient any relief nor help the reputation of the surgeon. It is only in the recent cases that a cure can be effected by washing out the antrum through the natural opening.

In the surgical treatment of antrum disease the author prefers making the perforation in the canine fossa above and between the second bicuspid and first molar. If first molar is out he prefers to enter immediately above, through molar ridge. Into the opening a silver tube is fitted which is self-retaining, and can be worn for months without discomfort or inconvenience. The irrigation is done by the patient himself several times daily. The tube is made of a size to exactly fit the opening made by the drill, and is slightly swollen on the distal end to make it self-retaining. The end projecting into the buccal cavity is provided with a head or smooth rim. The tube being in position the patient takes the fluid into his mouth, and by a pumping motion of the cheeks it is made to pass rapidly into the antrum and thence by the natural opening into the nose.

In obstinate cases he advocates making a large opening through which the cavity can be explored and thoroughly curetted, clearing it of polypi, flabby granulations, fungosities and dead bone tissue.

The treatment of ethmoid disease is considered to be mainly surgical. The aim is to reach the cavities and effect their free drainage, as well as a removal of the carious bone. In operating on these cells the aim is to do thorough work, remembering at the same time the delicate structures that surround the field of operation. The curette and forceps are the instruments preferred for the removal of the diseased tissue. Thorough work is recommended, and the operation to be repeated until all diseased tissue is removed and discharge ceases.

Medical Experience Among Indians.

The current number of the Western Medical Review has an original article on the above subject by Dr. G. W. Ira, of Santee Agency, Nebraska, who presents the subject in an attractive, interesting and forcible manner.

The writer begins by giving the mode of procedure for entering the service under civil service rules; the many an

varied difficulties he has to contend with when in the service ; what is required of him, his duties, &c.; the causes of the partial failure of the present policy of the Indian bureau; the prevailing diseases, which are mainly of a tuberculous or syphilitic nature, showing that four-fifths of the adult population die of tuberculosis in some form or other, and that children are by no means exempt from the disease.

Puberty is reached from the 12th to the 16th year, and is neither hastened or retarded by savage life. The menopause seldom causes any trouble and shows as wide a diversity as among civilized women. Marriage is consummated, in most cases, as soon as puberty is reached. Parturition is usually accomplished with perfect ease.

Puerperal disease is unknown and abnormal presentations are of rare occurrence. A ruptured perineum is unknown. Pelvic disease and diseases of the reproductive organs are very rare.

He further gives a rather comic description of his experience in obstetrics. The great mortality among infants, and the prevalence of glandular and pulmonary diseases among many of those that survive infancy are unmistakable evidence of the inroads that venereal diseases have made upon Indian vitality.

He winds up with a very interesting and attractive description of syphilitic dactylitis, which he says is quite prevalent among Indians. Surgery is limited to an occasional amputation, fracture, dislocation, necrosis, benign tumors, and wounds.

A New Healing Serum.

Dr. Marmorek, a young physician of Vienna, after years of bacteriological research, has succeeded in cultivating a healing serum that is not only efficacious in the cure of erysipelas, but is equally so in infectious connective tissue inflammations, infectious bronchitis, and even in puerperal fever. The serum is a product of the streptococcus, cultivated along the same lines as the antitoxin for diphtheria. The investigations have been made in the Pasteur Institute in Paris, and have been observed with great satisfaction by some of the leading physicians of that city, among whom are Drs. Chantemesse, Bar, Cuffer, Sevestre, Pozzi, and

Dieulafoy. Dr. Marmorek is quite satisfied with the results of the injection of this serum, but believes they are more particularly promising in post-mortem wounds and those infectious punctures so often received in surgical operations. This serum in the hands of Dr. Chantemesse gives for erysipelas a mortality of 2.59 per cent. based upon 500 cases, as against 3.79 per cent. for 554 patients treated by most approved methods without serum injections. The general condition improves some hours after the operation; nervous manifestations and especially the delirium are very favourably influenced.

Electric Baths and Dispepsia.

Doctor de Martigny, of Montreal, in a communication to the Canada Medical Association, first explains what an electric bath consists of, and this is that the patient is plunged into warm water in a porcelain tub.

A faradic current is then applied by mode of large carbon electrodes, one of which is directly in contact with the patient, and the other not touching him.

He varies the interruptions from 60 to 3,000 per minute.

First, a current of 90 to 150 interruptions is applied on abdomen to act on the muscular system of the stomach and intestines.

Secondly, the general nervous system is treated by means of a current interrupted 3,000 times a minute. The electrodes being applied, one at the lower part of the neck and the other near the sacrum or, sometimes, the feet.

He reports 6 cases of very intense dyspepsia against which all other treatment had failed, and which have been cured by electricity.

He claims that most of the time dyspepsia is due to some troubles of the nervous system first.

Following that, the stomach becomes lazy and easily dilated. Fermentation arises and also constipation, &c.

Since long the specialists have recognised the fact and order their patients: amusements, travelling, and, especially, mountain climbing.

But for business men, seamstresses, &c., it is not always easy and even possible to adopt such a disturbant and expensive

treatment. There is where electric baths take place and advantage, being easy to take, causing no displacement, no great expense and acting even more powerfully than mountain climbing itself.

Baths must be taken every day for a few weeks, and then once every week or twice.

By doing so dyspepsia disappears entirely.

Operation for Hæmorrhoids.

The following method is that of Professor Podreze. The sphincter is dilated under anæsthesia and a plug of cotton-wool is introduced into the rectum; each group of hæmorrhoids is then seized with Pean's forceps, and the skin near the base of the pile is incised as close as possible to the mucous membrane. A threaded needle is then introduced into the wound and passed round the bundle of piles and out again at the wound; the thread, which then surrounds the piles is tied, cut short and the piles are cut away. The skin and mucous membrane are then sutured together. The same thing is done with each bunch of piles. A drain tube surrounded with iodoform gauze is introduced into the rectum, and iodoform gauze dressing. M. Golachowski reports several cases operated on according to this method, and says it has the following advantages over other methods: (1) the technique is simple, easy, and only requires few instruments; (2) the operation is painless, and is quickly done; (3) little blood is lost, the cure is rapid, the patient leaving the hospital on the tenth day; (4) no complications have arisen, the cicatrix is supple, and no trouble has afterwards been experienced with defæcation.

A Therapeutical Blunder—Beef and Malt Wine.

F. C. Coley in the London Lancet, July 11, 1896, says:

There are various preparations on the market professing to be made up of extract of beef, extract of malt, and port wine. If this combination were believed in only by the uneducated public one need not be surprised. It is just the sort of therapeutical blunderbuss which might be expected to take the fancy of those who do not know better; but where we

find members of the medical profession recommending such a conglomeration it is time to draw attention to the absurdity of it. It is, in fact, difficult to imagine a more thoroughly unscientific combination than the one in question. Let us consider the ingredients separately and see whether they are well calculated to act together.

Extract of beef we all know is not food. Liebig himself proclaimed that. It has its use however. First and foremost, it is valuable because of its meaty flavour, on account of which many patients can take with it bread or lentil flour, &c., which would otherwise be unacceptable. It is also a harmless stimulant. Lastly, people who cannot take tea or coffee at supper time for fear of insomnia, and are liable to biliousness when they substitute cocoa, often find extract of beef (or some similar preparation) very useful because it decidedly favours sleep. To combine such a preparation with port wine shows a complete ignorance of its real uses. The slight stimulating effect of the very small quantity of the extract contained in an ordinary dose of the wine would be wholly inappreciable in the presence of the alcohol. It is plain that the only conceivable motive for such a combination must be the erroneous notion that extract of beef is capable of doing duty as a food.

Extract of malt is a valuable preparation, but when I prescribe it I like to know how much of it my patient will get. I doubt very much whether an adequate dose of it can be contained in a wine-glassful of the very mobile fluid which is sold as beef and malt wine. Nor do I see any reason to suppose that its powers for good are likely to be improved by mixing it with an unknown proportion of an alcoholic liquid.

Lastly, we have to consider the port wine. I shall not here express any opinion as to the therapeutic value of genuine port, but I believe that those of my professional brethren who have the strongest faith in its virtues most earnestly insist on the necessity of securing the real fermented juice of the grape. It is notorious that much spurious wine is in the market, and that it is extremely difficult, with the greatest care, to obtain as undoubtedly genuine article even

when a high price is not grudged. I do not know where the makers of beef and malt wine get their supplies, so I am not in a position to make any positive statement about the genuineness (or otherwise) of their "vintage," but I may mention some facts which appear to me to bear on the probabilities of the subject. The proprietors of the best known (because most extensively puffed) beef and malt wine have twice sent out circulars to the medical profession offering debentures at a high rate of interest. This was done avowedly with the design of interesting the profession in the sale of the article. I have myself received from the same company at different times more than a dozen sample bottles of their wine, and I have no reason to suppose that I have been more liberally treated than the rest of my brethren. I simply ask, what must be the profit on the sale when it is able to cover the cost of this enormous distribution of samples and of the profuse advertising which is done, and then leave enough to pay an exceptionally high interest on the debentures and dividends to shareholders presumably at a still higher rate? I suggest no inference from these facts, but "I speak as unto wise men; judge ye what I say."

If we believe that any of our patients are likely to derive benefit from malt extract by all means let us prescribe it—in doses such as we know to be adequate. If we are disposed to use extract of beef (or any similar preparation) let us remember that it is not a food and that it will therefore be worse than useless if it is so combined as to make it incapable of serving the only purposes for which it is really adapted. It must be agreed that we are recommending a very doubtful investment of money when we advise a patient to buy a bottle containing an unknown quantity of extract of beef and extract of malt dissolved in a liquid of problematical composition called port wine.

The Prevention of Phthisis.

Dr. Nivin introduced this subject at the British Medical Association. He said:—Tuberculosis is an infectious disease. This was proved in 1865 by Villemin, followed by Chauveau, Cohn, and Salomonsen. By his discovery of

the tubercle bacillus, announced in 1882, Koch quite altered the position of our knowledge in regard to the disease. It was possible to grow the bacillus outside the body and transfer it from soil to soil in apparently undiminished vigour. The identity of the disease in different mammals was established. The manner in which the bacillus attacks and spreads in the body was demonstrated, as well as the manner and capabilities of the body in resisting the attack. The amount of infective matter in tuberculous tissues and discharges could be estimated by the eye and precision given to all inquiries into infection. In the identification of the tubercle bacillus as the cause of tuberculosis the infectiousness of the disease was demonstrated with a degree of rigour which left no room for doubt. Where no tubercle bacillus has come there no tuberculosis can arise. By investigating the properties of the micro-organism we may be able to ascertain how it is to be prevented from getting into the body. It occurs very abundantly in tuberculous sputum, but can hardly be a source of infection till it has become dry and has been dispersed as dust. The same is true of other tuberculous discharges. In all cases of tuberculosis, therefore, where the infective element is escaping from the body, but especially in phthisis, the discharge must be prevented from becoming dry, and every precaution should be taken to destroy the living matter in it. The dung of tuberculous cattle and the rosy secretion from their nostrils are also highly dangerous. Cats often appear to be tuberculous and ought then to be destroyed. As regards the reception of infection, however, there is much to be observed which points to other ways of combating the disease. Pathological observation and clinical inquiry proved that the tubercle bacillus has often a most strenuous struggle to establish itself in the body at all, and the results of post mortem examinations, as shown by Dr. Thomas Harris and others, indicate that the tissues are often successful in suppressing the disease after it has started. The invasion of the disease is, however, greatly facilitated by a variety of predisposing causes, such as damp, ill-ventilated, crowded, and dark homes; unhealthy occupations; excess, distress, and over-exertion; previous attacks of disease,

such as measles, whooping-cough, and pneumonia; and traumatism. In the minds of many the predisposing causes are more important than the element of infection, and they say justly that a great reduction in the incidence of tuberculosis would be effected by getting rid of unhealthy and congested areas, by laying out parks in the midst of cities, and by adopting improved sanitary measures; but, excellent as these things are, there would still remain conditions which, under unfavourable circumstances, would provide a soil for phthisis. Between one-third and one-half of the deaths among the adult population are due to phthisis. It is of the utmost importance, both for the sake of the tuberculous individual and for the sake of those living with him, that any insanitary conditions of his habitation should be removed. Measures of disinfection are urgently required in those cases and the researches of Professor Delépine on the action of chlorinated lime have supplied us with an easy and efficient method of disinfecting rooms. With respect to inherited tuberculosis, if the views as to the frequency of this condition held by Baumgarten, Klein and Mr. Victor Horsley are correct, our preventive efforts will be to some extent unavailing, but I have been unable to find any facts in support of those views either from post-mortem examinations or clinical observation. The providing of hospitals by sanitary authorities for the reception of phthisical patients is an ideal to be looked forward to, but not likely to be realised on an adequate scale for some time to come; for the attainment of the object chiefly aimed at it would not be necessary to keep patients an indefinite time in such hospitals. Milch cows should be housed in well-ventilated and well-lighted cowsheds cleansed twice a day at suitable times. They should be systematically inspected.

Treatment of Summer Diarrhœa.

Reinach observes that the treatment of acute gastro-intestinal affections in quite young infants has two objects: (1) The prevention of the ill-effects due to the consequent thickening of the blood; and (2) rest for the diseased tract. A third indication may be put down as the pro-

viding nourishment in other ways. The first indication is met, though often imperfectly, by stimulants, mustard baths, etc., Monti and Epstein practised with good results the subcutaneous infusion of saline solution. Grawitz showed that the injection of serum produced a thinning of the blood. With this object the author has treated 15 cases of infantile diarrhœa with sterile serum obtained from calves. Only the worst cases were selected for this purpose. Of the 15 cases 4 died, but 2 of these had, in addition to the gastro-intestinal affection, broncho-pneumonia; 10 to 20 c.cm. of the serum was injected. In one case a measles-like eruption appeared in 14 days. The age of the infants varied from 14 days to 9 months. The effect of the injection upon the general condition was decidedly good. The collapse temperature rose to normal. Twice fever occurred after the injection, the temperature once rising to 38.5° C. Usually the injection was given in the evening, and on the next morning improvement was noted. No local treatment was adopted. Rice water was given during the first 24 to 48 hours. The author then refers to recent attempts to inject albuminous bodies subcutaneously. In 20 c.cm. of serum the amount of albumen is small, but perhaps larger quantities of the serum might be used. In 20 c.cm. of serum there is 1.5 g. albumen, and this amount corresponds to 50 g. undiluted cow's milk, and 150 g. mother's milk. The absence of fat could be compensated for by the injection of cod liver oil. A deficiency in the nourishment will, however, still remain. The abstention from feeding by the mouth need only extend over one to two days, so that help ought to be given by the injection of even small quantities of assimilable nutrient material. This treatment is being further investigated.

The Arrest of Hæmorrhage by Electricity.

Tripier (British Medical Association July 30 '96) discusses this question from the gynæcological point of view, and with particular reference to the uterus. Obstetrical hæmorrhages may be benefited by voltaic electricity, but call as a rule for the more heroic agency of the

faradic current. Bleeding occurring in gynaecological practice yields generally to galvanism; Apostoli holds that the positive pole is alone hæmostatic, the negative tending rather to the opposite action. Tripier, however, finds that with the currents he habitually uses (30 to 80 milliampères for five to ten minutes) both poles are hæmostatic. He regards Apostoli's view as a generalisation from the fact that electrolysis separates organic fluids into acid and alkaline caustics, or, as they used to be called, "coagulants" and "fluidifiants." As a matter of fact, galvanisation, say of a uterine fibroid, only produces an infinitesimal amount of acid, and that acid is hydrochloric, which does not coagulate albumen. The hæmostatic effect is hence in all probability not a chemical one, but an action through the muscular and nervous systems as with faradism. There is no doubt, however, that when scars result from galvanisation, those at the positive pole are more hard and retracted, like those caused by the actual cautery, while the seat of the negative pole is marked by soft and pliant cicatrices. Tripier concludes by maintaining that our knowledge as to the exact mode of action of currents on the human body is still embryonic, and requires much careful study, both in the laboratory and at the bedside.

Identification of the Typhoid Bacillus and the Choera Vibrio.

Dr. Klein has recently delivered three lectures on the subject of Recent Researches in the Identification of the Typhoid Bacillus and the Cholera Vibrio, before the British Institute of Public Health.

In his first lecture, Dr. Klein discussed the points of distinction between the typhoid bacillus and another micro-organism commonly associated with it and called the bacillus coli. Pursuing the same subject in the second lecture, he said there was another microbe to which attention had recently been called by Petruschki, named the bacillus *faecalis alkaligenes*. It so closely resembled the typhoid bacillus in morphological characters and cultural behaviour as to be indistinguishable, but it could be easily differentiated by the fact that it formed

alkaline products, whereas the typhoid bacillus was an acid producer. Another important microbe to bear in mind was the sewage variety of the proteus Zenkeri, which closely resembled the bacillus coli, and was indicative of the presence of sewage, as was also the proteus vulgaris, or microbe of common putrefaction. The lecturer pointed out that in making a bacteriological examination with a view to denoting pollution by sewage it was necessary to take account of the anaërobic as well as of the aërobic microbes, as they were very differently affected by certain conditions. For instance, he had recently examined a sewage effluent for micro-organisms, and found that whereas the purifying treatment to which it was subjected had reduced the aërobic microbes from 3,000,000 to 160 per cubic centimetre, the anaërobic microbes had remained quite unaffected. They were generally neglected in sewage and water analysis, which was therefore imperfect. Among the anaërobic microbes were the malignant œdema bacillus and the tetanus bacillus, both pathogenic to man, as well as several other kinds commonly occurring in putrid and decomposing materials. They were, therefore, not unimportant either in respect of numbers or of character. Dr. Klein then went on to speak of the difficulties of demonstrating the presence of the typhoid bacillus in fluids. They were, he said, very great, not because the bacillus could not be distinguished from others by cultivations, but because it was masked by the enormous quantities of the commoner bacilli usually present in the fluids examined. He quoted cases in which the typhoid bacillus had only been demonstrated with the utmost difficulty in sewage and water, although it was undoubtedly present in large quantities. In the outbreak of typhoid fever at Worthing, for instance, in 1893, an examination of 2,000 cubic centimetres of polluted water failed to reveal the bacillus; and a second examination of 1,200 cubic centimetres, collected drop by drop from the sewage polluted water, only produced a few colonies. The examination of milk was not less difficult than that of sewage or water for the same reason. Milk, quite honest and of good quality in other respects, was often found to contain from 40,000 to 250,000 microbes per cubic centimetre.

The chances of finding the typhoid bacillus in ordinary cases where it was only present in small quantities were exceedingly remote. It was like looking for a needle in a rick of hay. Statements, therefore, such as were repeatedly made to the effect that certain samples of water, milk, or other materials did not contain the typhoid bacillus were quite valueless. The only safe rule was to regard any fluids in which the presence of sewage organisms had been demonstrated with suspicion, whether the typhoid bacillus was found or not.

The third and concluding lecture, dealt with the cholera vibrio, more popularly known as the comma bacillus. Dr. Klein said that there was now complete agreement that the particular species of vibrio discovered by Dr. Koch in acute Asiatic cholera was characteristic of that disease and of diagnostic value. In some cases it occurred in enormous quantities in the intestines and intestinal discharges of patients, almost to the exclusion of all other bacilli, but there was no definite relation between the number of vibrios and the severity, acuteness, or purity of the cholera. In a considerable percentage of typical cases they were mixed with large numbers of other bacteria. Sometimes, when the vibrios were present in a fairly pure state, they formed rows, as Dr. Koch had pointed out, and this "fish-in-stream arrangement" was so characteristic of Asiatic cholera as to be sufficient for a definite diagnosis without any further examination. That condition was only found in a comparatively small proportion of cases. Out of the 50 odd cases which occurred in England in 1893, it was observed in only 15. The presence of the vibrios could almost always be demonstrated from the earliest stage of an attack onwards, but varieties presenting definite differences of form and behaviour occurred in different cases. The best method of rapid examination was that of Dunham, in which a culture was first obtained in peptone salt solution, and, if this turned out fairly pure, the addition of pure sulphuric acid gave the characteristic "cholera red reaction." After further describing the best methods of making cultures and demonstrating the presence of vibrio, the lecturer proceeded to illustrate his remarks by a number of photographic specimens

thrown upon the screen, including preparations taken from the cases of cholera which occurred in England in 1893. One perfectly typical specimen was that of the House of Commons charwoman, who died suddenly of an acute attack. Another of great interest showed the vibrios in the water taken from the polluted well at Ashbourne. Passing on to the subject of immunised blood serum, Dr. Klein said that it had been shown by Pfeiffer that the blood of an animal immunised by repeated injections of cholera vibrios possessed a germicide action, which was quite distinct from the action of antitoxin. The latter counteracted the poison formed by the germs, whereas the cholera serum of which he spoke killed the germs themselves. A similar typhoid serum had been obtained, which had the same effect on typhoid germs. Such serum might be used in two ways—*in corpore* and *in vitro*—as a test for the presence of the specific germs which it had the power of destroying, and was of undoubted value in positive cases; but Dr. Klein could not admit that it possessed equal value in negative ones. In other words, if the germs to be tested were affected by the serum, then they were proved to be cholera germs; but if they were not affected it could not be assumed that they were not cholera. For germs originally derived from true cholera might become so modified by a change of environment that they no longer responded to the same tests as before. This had been observed in the case of a number of microbes, which had permanently altered their characters under the influence of various conditions. The lecturer concluded by demonstrating the action of cholera serum on a number of cholera germs which had undergone various modifications, showing that some responded and some did not. He also demonstrated the same thing in regard to the "cholera red" test with sulphuric acid.

The Advantages and Disadvantages of Using Sterilized Milk.

Dr. Johnstone Campbell (British Medical Association) read a paper on the above subject and commenced by mentioning the various chemicals used to prevent fermentation in milk when were, he thought, of little service and not good

for the consumers of the milk. He also alluded to oxygen and the electric current filtration and cold. Heat was, he considered, the only safe treatment to render milk germ free. He gave details of Pasteurisation and sterilisation and said that the advantages of *raw* milk were that the fats were more digestible, the salts more assimilable, the casein more digestible, and the taste nicer. The disadvantages were the risks of contamination with germs of disease. To avoid these, the cows should be kept perfectly clean, the byres clean and well ventilated each cow having 1300 cubic feet of air changed three times an hour, and of course perfect cleanliness of milkers' hands and pails. The first milk should always be thrown away, as it contained far more germs than what followed. The milk should be cooled at once. But we have to deal with milk as we get it, so it is necessary to sterilise. We cannot entirely free milk from germs by boiling. It is much better, therefore, to sterilise clean milk than to try to clear dirty milk of germs which have been found in cases of cholera, typhoid fever, scarlet fever, &c., to exist in milk. The disadvantages of sterilisation are that the casein is less digestible (taking half as long again to digest); that the action of rennet is different (partly due to precipitation of calcium salts) hence there should be longer intervals between meals when children are fed on sterilised milk; the taste and smell are altered and carbonic acid gas is driven off (this might with advantages be artificially replaced); and the leucocytes are killed—a doubtful disadvantage in the present hazy condition of our knowledge of them as they exist in milk. Pasteurisation is preferable, as it changes the milk less and is very nearly as effective in freeing the milk from germs. He also referred to the idea that sterilised milk caused rickets, and gave details of a milk artificially prepared which resembled very closely the composition of human milk and to which barley-water and a little salt might be added.

Lactation and Atrophy of Uterus.

Vineberg after careful examination of the uterus in women during lactation, finds that a true process of atrophy goes

on quite independently of even relative debility or anæmia. Indeed, in women who remain feeble after labour or become weak from any cause, external or internal, and in patients anæmic before pregnancy, the uterus tends to remain large. Subinvolution in fact is, as has long been recognised, a morbid condition; but Vineberg finds that when involution goes on to its full completion, the uterus is reduced to a size smaller than that of the non-parous organ. This condition—post-puerperal superinvolution—is principally seen in nursing women, and from this circumstance has been termed “lactation atrophy.” It is normal and desirable, and is temporary, becoming permanent under rare and unfavourable circumstances. When the lying-in woman cannot suckle, the medical attendant should try to bring about super-involution. This course, Vineberg believes, will save her from the development of a host of maladies due to subinvolution.

Results of Ligature of the Vertebral Artery.

Baracz (The Clinical Journal) reports a case to show that ligature of the vertebral artery, like ligature of the common or internal carotid, may be followed by symptoms of circulatory disturbance in the brain. In an attempt at the same operation to tie both vertebrals in a young man suffering from epilepsy, it was found advisable, after the vessei on the left side had been secured, to postpone the ligature of the opposite artery. Two days after the second, and sixteen days after the first, operation paresis occurred of both limbs on the right side and of the right facial nerve. This condition gradually disappeared in the course of two months. The vertebral arteries in this case were very large, and, the author thinks, may have taken a greater relative part in the circulation at the base of the brain than the internal carotids. The appearance of paralytic symptoms after ligature of the vertebrals must be rare, as such a result was not observed in any of the 36 cases in which this operation had been performed by Alexander. The author's case has a physiological rather than a clinical value, as cerebral disturbance is not likely to occur except after bilateral ligature, which operation, in

consequence of its proved failure in cases of epilepsy, will be very rarely, if ever repeated. In such cases it has been found by the author that double ligature is followed at first by temporary relief, and afterwards by a return of the epileptic symptoms. The slight and transient improvement in the condition of epileptics observed after ligature of the vertebrae is attributed by the author to interference with the sympathetic nerves in the neck and is, in his opinion, quite independent of obstruction of the cerebral circulation.

University College of Medicine, Richmond, Va.

This institution was chartered several years ago with the three independent departments of Medicine, Dentistry, and Pharmacy. Its success has been phenomenal, there having been in attendance last year 239 students. The aim of its Faculty is to make this a high-grade institution for the teaching of medicine in all of its departments, and the facilities for instruction are of the most approved and modern design.

Its Faculty, numbering forty-eight instructors, contains among its number some of the most eminent men in the profession in the Southern States. Dr. Hunter McGuire, whose reputation is national, being President. Recently its hospital facilities have been very much enlarged, and it now has two hospitals in connection with it, one of them having accommodation for one hundred and fifty patients.

The system of teaching is personal and practical, and as much attention is paid to "old fashioned" recitations, quizzes, and laboratory work as to clinical and didactic teaching.

The outlook for the coming session is said to be unusually promising, students from twelve States having already matriculated for next year. This institution gives a three year graded course of seven months each, instead of a four years' course of six months each, the Faculty believing the former method preferable for the reason, that the student can do more continuous and systematic work in that way.

The next regular session will open October 1st.

Charcoal as a Therapeutic Agent.

Wild, in *Med. Chron.*, describes numerous laboratory experiments undertaken with the view of ascertaining whether charcoal is an efficient deodoriser and deoxidiser of organic substances when used in the wet state, whether there is any distinct difference to be found between the action of animal and vegetable charcoal, and whether charcoal has any action upon living organisms. The oxidizing and deodorising action of charcoal is thoroughly carried on by wet charcoal, the oxygen condensed within its pores, to which it probably owes its activity, apparently not being removed by rubbing the powdered drug with water. Purified animal charcoal gave results identical with those obtained with powdered wood charcoal. Unpurified animal charcoal was less efficient than either. Charcoal has apparently no direct effect on living organisms. Charcoal may be used externally as a local application to foul ulcers, or mixed with water as an injection into vagina and rectum. It is occasionally of benefit, but is a dirty application and is not likely to supersede our present antiseptic drugs. Internally charcoal appears to be worthy of further trial in cases where there is undue decomposition of the contents of the alimentary canal, such as dilatation of the stomach, certain forms of gastric and intestinal indigestion, and other conditions in which the alimentary canal contains abnormal toxic substances, also in certain specific diseases presenting local lesions of the alimentary canal. Many of these, such as cholera, typhoid, dysentery and certain forms of diarrhoea, are due to living organisms, and the view is gaining ground that many of the symptoms in these cases are due not so much to the organisms as to the formation of various toxic substances. In these classes of cases charcoal may act by oxidising chemical substances formed during abnormal decomposition, or the various toxins produced by pathogenic organisms. The power of charcoal to remove alkaloids from solutions is also worth considering, as certain toxins or ptomaines are possibly of an alkaloidal nature. It may not be a direct curative agent in cases where it is of service, it may, however, prevent auto-intoxication from the alimentary canal,

and so prevent serious symptoms. Being non-poisonous it can be given in large doses, from 2 to 6 teaspoonfuls a day, gradually increased.

Rest in Heart Affections.

Dr. Lauder Brunton recommends absolute rest in cases of advanced mitral disease. Rest enables the circulation to recover its balance, the excessive accumulation of blood in the veins giving place to the proper distribution of the blood between the brain and the arteries; the dropsical effusion and general venous engorgement of the various organs, including the viscera, thus disappears. The change from absolute rest in a horizontal position to the vertical position, with gentle exercise, must be very gradual indeed. Massage and manual Swedish movements are of the greatest value in making the transition, and also in aiding the re-establishment of the normal circulation. The timely enforcement of rest in cases of this sort may save the beginning of the valvular malady of the heart, and thus by judicious management restore the patient to a condition of comparative health and comfort. We have found hot and cold sponging of the surface of the body of great value in the restoration of the normal balance of the circulation.

Dr. Brunton very properly calls attention to the danger of enforcing the rest cure too vigorously in cases of anæmic girls who, by too prolonged rest, are likely to fall into a state of exhaustion in which the heart will receive greater injury than from gentle exercise.

Dr. T. R. Potter of 3970 Drexel Boulevard, Chicago, writes:—

"It is not often that I write commendatory letters on proprietary remedies, but for the good of those who may be afflicted with that pestiferous disease, Eczema, and the general medical profession, I wil say that after many years experience in the treatment of skin diseases, and eczema, in particular, I have never prescribed a remedy that has given me the satisfaction and prompt curative results, that I have found in Almondola, the ointment prepared by the Anchor Chemical Co., of Akron, Pa." See their ad. in this issue, and write to them for further information.

The Structure and Absorption Powers of the Peritoneum.

This has been the subject of experiments by Muscatello, who concludes that: (1) The diaphragm is the only portion of the serosa which is designed for the absorption of granular substances. This absorption takes place with extreme rapidity, (2) There exist in the abdominal cavity continuous fluid currents directed towards the diaphragm. It is the function of the mediastinal lymph glands to collect the lymph originating in the abdominal cavity. (3) The endothelial cells of the serosa possess in part long processes. Under normal conditions they form a uniform layer possessing no openings. The formations described as stigmata or stomata are accidental products. At many points rounded spaces, which are covered on the surface by the lamella superficialis, may originate by the retraction of the protoplasm of two or three neighbouring cells. Under ordinary circumstances leucocytes are found here and there between the endothelial cells. (4) The limiting membrane, which is perforated in the district of the peritoneum diaphragmaticum, shows no trace of such openings at many other localities. (5) Finely granular substances (carmine) and soft pliable bodies (red blood corpuscles) penetrate the endothelial layer of the diaphragm in great part in a free state by pushing their way between the endothelial cells, in less part as inclusions of leucocytes. Large, firm bodies (starch) pass through in much the same manner, but the transmission of the largest of these granules takes place through the intervention of leucocytes, which spread themselves over the surface of the foreign body, thus enclosing it in a contractile layer.

Stickler has also conducted experiments of somewhat similar nature on guinea-pigs, and, allowing for any differences of susceptibility which may exist between guinea-pigs and man, it would seem from these experiments that faecal matter, pus, perspiration, and urine are not so likely to cause trouble when introduced accidentally or purposely into the abdominal cavity as has been supposed. Carpet tacks introduced into the peritoneal cavity were covered with lymph and appeared to cause no mischief.

The Continued Increase of Cancer.

Mr. Roger Williams (British Medical Association, July 30, 1896,) said that perusal of the last issued report of the Registra-General, which showed that the cancer death-rate had once again surpassed every previous record, had stimulated him to bring the subject forward on this occasion, although much that he had to say was but a repetition of what he had previously stated. In this pushing age a certain amount of repetition seemed to be necessary in order to secure for a neglected subject its modicum of attention.

In 1840 cancer caused 1 in 129 of the total mortality.

In 1894 it caused 1 in 23 of the total mortality.

Thus the proportional mortality now was more than four times greater than it used to be half a century ago. In this respect its position was unique; no other disease could show anything like such an immense increase. It seemed certain that, if unchecked, cancer would ere long become one of the commonest diseases of modern communities. The subject was one that required thorough investigation on a larger scale than could be undertaken by any individual. It was a matter of national concern.

Mr. Williams referred to the remarkable decline in the death-rate from phthisis and other tuberculous diseases that had coincided with this great increase in the cancer mortality. It seemed to him exceedingly probable, from considerations derived from the study of the family history of cancer patients, that a large proportion of those thus saved from tubercle eventually perished of cancer and insanity, and he thought that the increase in the latter diseases had largely been brought about in this way.

In discussing the causation of these extraordinary occurrences, Mr. Williams said, although we were not in a position to solve the problem in a thoroughly scientific manner, that we need not be deterred on this account from formulating such explanatory conceptions as, after careful study of the subject, seemed likely to be useful. He thought it improbable that such conditions were directly ascribable to any single causative factor. The conclusions he had arrived at was

that the increase of cancer had sprung out of impulses generated by the sudden and violent environmental changes associated with the transition from the agricultural to the industrial mode of life, which certainly was one of the most profound and far-reaching vicissitudes that the human race had ever experienced. Industrialism acted injuriously on the health of those exposed to its influence by inducing certain degenerative changes which rendered those affected incapable of properly resisting tuberculous and other morbid excitations. He believed that defective cellular metabolism was at the bottom of these changes; and this was the common root whence such diverse morbid manifestations as tubercle, cancer and insanity sprang. In times of national prosperity the evil effects of industrial conditions of life were to a certain extent mitigated by sanitation, good feeding, etc. Thus many of those who had acquired morbid predisposition nevertheless escaped destruction. It was from these persons and their descendants that the great cancer army was constantly being recruited. Hence there was some truth in the curious paradox that a high cancer mortality was an indication of good sanitary conditions. No single factor was more potent in determining the outbreak of cancer in the predisposed than high feeding. He thought that the gluttonous consumption of meat, which was such a characteristic feature of the age, was especially harmful in this respect. Statistics showed that the national meat consumption had now reached the amazing total of 126 lbs. per head per year. When excessive quantities of such highly stimulating forms of nutriment were ingested by persons whose cellular metabolism was defective, Mr. Williams thought it likely that it might excite in those parts of the body where vital processes were still active, such excessive and disorderly cellular proliferation as would eventuate in cancer. No doubt other factors co-operated, and among these he would be especially inclined to name deficient exercise in the open air.

The Art of Prescribing.

Dr. S. F. Rogers, of Troy, N. Y., under the above title, writes for the New York State Medical Reporter: "That

all human relations are advancing by an evolutionary process; by a careful study and correct understanding of correspondence with presented environments."

There exists no claim that the science of medicine roaches farther than what we see in the accumulated and established knowledge, systematized and formulated with reference to general truths, and the operation of general laws touching the relationship of man to normal conditions. Perfect correspondence would be perfect life. With this beyond the reach of man, we ply ourselves to the study of the uses of such remedial agents as will best meet our conditions, with the least discomfort to the tastes of patients, and disturbance of organs retaining normal conditions. This forces the prescriber into a position of qualification; otherwise, every attempt to associate remedial agents with diagnostic precision would invariably give negative results; as such agents may prove "drugs" to normal conditions, pointed to by clinical history, as ever having refused to render vicarious assistance.

From the cradle to the grave, blundering humanity are seen struggling for existence, and as they near the danger line the learned physician is appealed to for scientific aid. What is his duty? First, what will best obviate the tendency to death? Medical science has reached out little by little for years to formulate even an approximate idea of what will thwart its purpose, and contents itself with the theory of replacing in an organism a correct correspondence with normal conditions, and this only by rational application. Such conditions carefully watched and guarded lest undue injury from the presence of any element administered, whether with healing intention or otherwise, is imperative.

Thoughtful and broad minded sections of therapeutists, aim to carefully consider every relationship of medicine to diseased conditions, especially from the supreme position of clinical experience, which always has proved the ultimate of the value of any remedy or drug. There is no grounds to suppose that each and every symptom is of such import as to indicate specifically a relative clinical value, demanding a large dose from our materia medica. Notwithstanding completeness in practice demands and in-

cludes every important therapeutic measure, from a practical standpoint only. We extol or condemn no remedy. But certain objectionable methods of administration are not only disappointing, but disastrous to the welfare of the patient. The knowledge obtained from an empirical origin, while it does not play a star part in our present system, adds to the leading impulses of the day, and forces the physician from the time worn "rut" of conventionalities, to the higher plain of thought, where progress finds no impediment by heated discussions over impossibilities that have clogged the wheels of science.

We can most reasonably suppose, as we stand to-day on the very threshold of a vast and unexplored future, that the little ray of light struggling with mists and tumbling clouds, prophesy the coming therapeutist as a student of sciences and art, leading up to the best methods of placing his patient in correspondence with normal conditions, with the least possible quantity, together with the best grade of quality the future achievements of pharmacy can place at his disposal.

X Rays. A Curious Case of Dermatitis Traced to Roentgen Rays (Dermatitis Rontgeni.)

The Codex Medicus for August publishes an article by Dr. T. E. Conard, of Philadelphia, on the above subject, that opens up for discussion and investigation what may prove to be a very important subject in therapeutics and pathology.

A patient applied for treatment for what he thought was rheumatism of first and second fingers, but which proved on examination to be a well defined dermatitis. The dorsal surfaces are described as being greatly swollen and extremely sensitive to the least touch, and of a peculiar livid brown color. The pain was intense and of a burning or scalding character as if burned with a hot iron. A history was obtained of exposure to X rays of that particular part of the hand for sixty hours in all during two weeks of giving public exhibitions. A demonstration of the position of the hand showed that the rays would impinge directly upon the parts affected only, and the line of demarcation was well defined.

The fact was also brought out that the

hands had been exposed to the action of Potassium Cyanid and other chemicals used in photography at intervals during that time.

The writer while positive as to the existing condition, and that it was a dermatitis, due either alone to the exposure of the parts to the X rays, or to X rays plus chemicals, leaves the question open whether the former would alone have produced the condition. If the new light is composed of moving atoms that have the power of displacing other atoms, of pushing them along before them or carrying them on, then the hint thrown out in his article of its therapeutic possibilities will be worth following up.

Stubborn and obstinate joint affections, various forms of rheumatism, specific troubles, internal tumors, &c., may be reached and removed by applying to the surface certain indicated medicaments and by means of the X rays made to permeate the diseased parts and thus by their direct action more readily and promptly cure than if given by the mouth and the indirect route of the circulation.

As in gumma of the iris, specific iritis with synechia and other affections from the same cause we find mercurial inunctions more prompt and efficient than when given by the mouth, so also by the means of X rays and suitable remedies other diseases may likewise be more effectually cured.

Pains in the Lumbar Region.

The Medical Age, August 10th, contains an article on the above subject by Dr. Samuel Wolfe, of Philadelphia. The neglect of study of these pains as a class, as compared with those of the head, is remarked on. The author then makes three divisions: Those relating to the parts immediately affected, to the neighboring organs of the pelvis, abdomen or chest, and to general systemic conditions.

In the first class are embraced neuralgia, neuritis, lumbago, rheumatism, traumatic arthritis, rachialgia, caries, meningeal and cord inflammations, and tumors of the vertebræ or cord. A proper restriction of the term lumbago, to a definite affection is advocated. The writer believes that rachialgia is a species of "hysterical joint," when occurring in hysterical subjects. It is, however, ad-

mitted that it may be a symptom in traumatic or anæmic cases, and of a purely neuralgic character.

In the second division are placed the pains which arise in "irritable testes," hemorrhoids and other rectal diseases, uterine and ovarian disturbances, psoas abscess, labor, floating kidney, nephritis, renal calculi and pyelitis.

Of labor pains, the writer says, they seem to be largely due to an intense cramp-like contraction of the muscles which fix the lower segments of the spinal column. The effects of nerve pressure are, however, not denied, but are said to be mainly present in the later stages of labor, and distinctive in their radiating and shooting qualities. Incidentally a case of pneumonia is mentioned, in which the primary symptom was a severe lumbar pain.

In the third class are placed the pains of neurasthenia, hysteria, anæmia and other debilitating conditions, and those of the specific fevers. The special characteristics of these pains in the various diseases referred to are well worked out, and their value in diagnosis is forcibly expressed.

There is no special attempt to explain the mode of production of these pains, in systemic diseases, but still there is an intimation that views are in the author's mind, which it would be interesting to have him elaborate in connection with what seems to us to have been a very comprehensive and thorough study of an important class of symptoms. We desire to commend to our readers the original paper as useful and practical.

The Medical Side of Appendicitis.

The September issue of the Medical Brief contains the concluding article on the Medical Side of Appendicitis, by Dr. E. H. Richardson, of Atlanta, Ga., begun in July. The article is elaborate and exhaustive, and is of more than ordinary interest.

The careful reader of these articles by Dr. Richardson, will readily discover that the author has convictions upon appendicitis and that he is unwilling to be controlled by the sentiment now taught that appendicitis is invariably a surgical disease. The contrary doctrine is boldly urged that in one hundred cases properly

treated from the earliest manifestation of the disease by rest in the recumbent posture, abstinence from all food and drink except ice for first twenty-four hours, opium sufficient to relieve pain and give rest to the bowel by quieting peristalsis, emptying the bowel by large enemata and the application to abdomen of leeches and hot poultices. 90 cases will end in recovery without the intervention of surgery. Eminent French, English and American authorities are cited to sustain this view. The author advises the use of the knife for the following conditions:

"(a) To give exit to pus at once after formation."

"(b) For perforation."

"(c) For the relapsing form of the disease in young subjects, but always during the quiescent period of the disease."

During an acute attack the author insists that surgical interference should not be resorted to except to relieve the above conditions, and rarely before the fifth day. To operate during the acme of the inflammatory stage of the disease, and only to remove the appendix, he regards as not founded on sound surgical principles, and fraught with unwarranted risk to the patient.

In concluding the series of articles the author expresses the belief that the near future will demonstrate that the treatment of appendicitis belongs to the field of medicine and not to surgical art.

Dr. Richardson's wide American experience, and extended observation in the great Hospitals of London, Paris and Vienna, give weight to his views.

Internal Glandular Secretions.

An interesting article, and one instructive to the profession, was read by Dr. J. M. Dalton, of Harrodsburg, at the July meeting of the Central Kentucky Medical Association, and published in the American Practitioner and News, in its issue of August 8th, on "Internal Glandular Secretions," from which we extract the most salient points. He divides the glands of the human body into three distinct classes;

1st. Those that excrete materials from the blood and convey them by mucous lined ducts to the surface, then to be used again or eliminated. The kidneys and salivary glands belong to this class.

2d. Those which have a double function, one of which secretes materials from the blood and conveys them to the surface, as in the first class; the other extracts from the blood a certain substance and pours it back into the blood direct, or by means of the lymphatics; to which class the pancreas and liver belong.

3d variety have no ducts, an internal secretion is elaborated, which is conveyed into the blood direct or by lymphatics—in this system belongs the spleen, thyroid, thymus, pituitary and suprarenal glands.

He designates this function with that of the second class, as "internal secretions," which plays an important role in the animal economy, secreting as they do a ferment, which being poured back into the blood prevent a number of diseases that have been hitherto held as incurable.

Attention is called to the function of the thyroid, and where goitre prevails a peculiar, mental and physical impairment of the children is sure—they are malformed, idiotic or feeble minded. This is the cretinoid state, and is connected, indefinitely, with disease or atrophy of the thyroid. Sporadic cases are sure, occasionally in this country, but in its habitat the disease is endemic. The cretinoid state has been termed by Ord Myxedema, owing to the large amount of mucoid material in subcutaneous tissue. Extirpation of the thyroid, as practiced in goitre, is followed invariably by a condition identical to myxedema, from which the functional importance of the thyroid for the normal metabolism of the body is clinically demonstrated, thus opening up one of the most striking therapeutical discoveries of modern times, that of feeding by the mouth, or the subcutaneous injections of the extract of the thyroid gland to myxedema subjects.

He makes no difference between cretinism and myxedema, the only difference is the age when the disease begins. Before fifteen it is called cretinism; after fifteen, or removal of the thyroid at any age; it is termed myxedema. Both are caused by failure of the thyroid to furnish ferment which is essential to healthy metabolism.

The suprarenal glands are not without influence to health. In "Addison's disease" three important symptoms are observed, a gradual deepening of skin pigmentation, asthenia, muscular and mental, and gastro-intestinal disturbance. Disease

of these glands, often is tuberculous, but these symptoms follow cancer, atrophy and sclerosis. An extract from the adrenals glands of the sheep, prepared like the thyroid for myxedema, and administered, where the disease, especially, is from sclerosis or atrophy, has been followed by brilliant successes, where the disease of the "suprarenals" is a part of general tuberculosis, or cancer, treatment will be of no avail.

He considers the pancreas, its double function, that of secreting pancreatic juice and a glycolitic ferment, and showed the relation between true diabetes mellitus and disease of the pancreas, and believes that diabetes mellitus is due to degenerative lesions of the pancreas, which impair and destroy its function of pouring into the blood a glycolitic ferment, the presence of which in the blood determines the destruction of sugar, the rational remedy would be to supply this glycolitic ferment and Ballistini has treated by subcutaneous injection of pancreatic extract, with results almost equal to thyroid feeding, in myxedema.

The author fully believes that it has been fully established that sugar is destroyed in the blood of diabetic animals by pancreatic extract from glands of other animals.

Prognosis of Albuminuria.

Duckworth says: The prognosis in respect to this symptom is only to be framed by full consideration of all the features of each case. We have but little knowledge respecting the issue of cases of so-called cyclical albuminuria of young adults, chiefly male subjects, but may believe that many of such patients entirely recover. After the seventh climacteric slight albuminuria, with finely granular casts, may occur for many years without giving rise to important symptoms. Chyluria of the non parasitic variety may last for many years without disturbance of health. Chronic nephritis, tubal, intestinal, or tubulo-interstitial, often runs a protracted course. Prognosis can be framed only by a consideration of all the personal and diathetic factors in each case. I have long been convinced that there is great variation in the course and outcome of chronic parenchymatous nephritis; and while some patients rapidly

pass into conditions beyond recovery others hold on for many years, passing large quantities of albumin and degenerating tube casts, with little or no dropsy, no cardio-valvular changes, enjoying, moreover, very fair general health, so long as care in all respects is taken. In one case known to me a patient was given a year to live. This was over twenty years ago, but this gentleman is now in practically good health, although constantly passing albumin and casts. I am sure that many such patients do fairly well, and that by steady perseverance and treatment remarkable improvements occur—improvements sometimes owing to no particular drug or dietary. Many of us have known of such cases and have seen uræmic conditions arise again and again, with retinal hæmorrhages, retinitis, cardio-vascular changes, severe dropsy, and yet a marked improvement has set in and surprised us. Thus we think less gravely of uræmia than our preceptors were wont to do, and by modern treatment with drugs, and occasionally by the older treatment of venesection, we find this grave condition more amenable than was formerly the case. I have known attacks of uræmic convulsions with Cheyne Stokes respiration to pass away together with other symptoms after many months of apparent stasis and incoercible indifference to orthodox treatment. The personal factor and tissue proclivities must, therefore, be reckoned with in each case, and we have thus to regard the patient more steadfastly than his malady. Uræmia in cases of interstitial nephritis is altogether a more grave condition, and in a chronic form with convulsions, but with more or less coma and stertorous respirations, generally precedes a fatal event. Epistaxis, hæmoptysis, or hæmaturia, or, indeed, any hæmorrhage flux, is to be reckoned salutary averting an intraocular or a fatal cerebral hæmorrhage.

The Prognosis of Syphilis.

The prognostics respecting this disease relate largely to individual peculiarities, habits, and environments, to the adequacy of treatment, and the degree and virulence of primary impregnation. It is certain that the greater number of persons so infected ultimately recover satisfactorily if they have been properly treated from

the outset. It is equally certain that the character of the primary lesion does not enable us to prognosticate the ultimate evolution of the malady. Death is extremely rare in the second stage. Tertiary symptoms occur in about ten per cent. of all cases and in but few of these are vital organs affected. They may be met with in the third year, but some of the latest manifestations may be active half a century after primary infection. Many of these yield to vigorous treatment. In visceral syphilis death generally occurs under forty years of age. Cardiac syphiloma usually kills at the fifth climacteric. Syphilis acquired after the seventh climacteric is always more grave than in young adults, organic degenerative changes having generally begun by that time, and the prognosis in these cases is unfavourable. A graver prognosis attaches to the disease in the lower classes, who are often inadequately treated and who are carelessly exposed to hardships and intemperate in alcohol. Recent malarial impregnation and recent syphilis, with splenic enlargement, together form a very serious combination, and a fatal issue is common within twelve months in such cases.

Croupous Œsophagitis.

Dionisi records a case of a patient who came under his observation complaining only of pain in the pharynx and afterwards in the epigastrium. On examination, pharyngitis, some broncho-pneumonia, and albuminuria were found. Three days later the patient died commatose. On post-mortem examination all the œsophagus as far as the cardiac orifice was found in a condition of croupous inflammation. The submucous and muscular coats were infiltrated with pus; the mucous membrane was intact; the spleen was enlarged, and there was some broncho-pneumonia. On bacteriological examination, streptococci only were found, and it was supposed that the morbid process had begun in a pharyngitis, and then spread to the œsophagus and the lungs, finally producing septicæmia. The author states that such cases are very rare, and that when œsophagitis has been present it was as the result of traumatism or as a secondary condition, as when the mediastinum or vertebral column is the seat of

some lesion, and he quotes Ziemmsen only as mentioning a case of primary œsophagitis from puncture by a fishbone. The author believes that croupous œsophagitis resembles croupous gastritis, of which there are several cases on record. It has been suggested that the œsophagus being destitute of lymph follicles, it would be on that account less resistant to the action of micro-organisms (Metchnikoff.) The author considers that œsophagitis would be very much more frequent were this the case, and he seems inclined to think that the infection of the organ by micro-organisms is rather a coincidence of which we have as yet no satisfactory explanation.

The Etiology of Diphtheria.

The editor of "The Hospital" has recently brought to notice some important observations in regard to the relation between diphtheria and the bacilli found in that disease.

It has long been known that in many cases the bacilli of diphtheria can be found in the throat by bacteriological investigation, although the patients may present no evidence of being affected by the disease. It has been shown that such persons run great risks if allowed to associate with those suffering from clinical diphtheria.

The problem is a most complex one, and it will probably be long before a completely satisfactory solution is discovered. Nevertheless, it may not be out of place to suggest that the most hopeful line of research lies in the investigation of the nature of the circumstances under which diphtheria most readily occurs, rather than hunting out further details regarding the bacillus which we already know. There are two sets of facts which just now seem peculiarly suggestive. On the one hand we have the well-known observations on concurrent infection, according to which microbes, which when isolated may be innocuous, become actively virulent when grown in conjunction with other forms, which themselves also are harmless when alone; and, on the other, we have a whole series of observations, made in many cases before the discovery of the bacillus, as to the conditions under which diphtheria tends to become prevalent, and especially as to its

association with forms of sore throat which themselves seem to be more or less infectious.

In view of what we know as to the frequent latency of diphtheria, it may be accepted that when this disease manifests itself after exposure to foul emanations, which are known to produce sore throats, these emanations must not be regarded as the cause of the diphtheria, but as the origin of a condition of throat in which the already present bacilli are able to manifest their full morbid virulence.

Much has been said about the "progressive development of the property of infectiveness," and about an epidemic gradually "working up" from one of ordinary sore throat to one of true diphtheria; but, while fully accepting the correctness of such observations, it may be said that such a "progressive development" may merely mean a progressive prevalence of that sort of sore throat in the presence of which diphtheria can most readily become virulent.

What we want now to find out is, what there is common to the varied conditions amid which diphtheria most frequently arises—damp soils, cold and variable climates, deficient drainage, foul emanations, crowding in schools, crowding in hospitals; "common sore throats," the condition of throat left by scarlet fever, and that something, depending on climatic conditions, which in these isles makes the period between September and the end of the year the season for diphtheria's greatest prevalence. The presumption is strong that the common condition is another microbe, producing another condition of throat, more or less infectious; and that while either the diphtheria microbe or this unknown microbe can be transmitted independently without producing very evil effects, their coincidence produces what is known as clinical diphtheria. This would explain the very different behaviour of clinical and bacteriological diphtheria. In the one case, both infections being concurrently transmitted, the full disease would be developed, whereas around these cases would be numbers in which only one or other form had taken root, the cases of bacteriological diphtheria being due to the diphtheria bacillus alone, while the crowd of sore throats which precede and surround epidemics of diphtheria would be due to

the so far unknown (microbic?) cause.

The investigation of the etiology of diphtheria must not, however, be left altogether to the bacteriologist. One important clue is given by the observations at the Asylums Board hospitals, viz., as to the effect of the aggregation or many cases of sore throat in leading to outbreaks of diphtheria; and it is by no means improbable that this may be the essential factor in what is called "school influence." This clue should be followed up by medical officers of health in their investigations into epidemics of diphtheria due to milk. Too often in such inquiries they have been content to convict the milk. But if we are to accept the official view, and take it as proved that milk from certain cows is capable of producing diphtheria, we must go further, and when we find the infection sown evenly over a district, we must next proceed to inquire what sort of people it selects, and what sort it passes by.

The tendency which diphtheria has shown of recent years to invade large towns has drawn forth various explanations, more or less unsatisfactory and conflicting. But if we consider certain social changes which have taken place during the same period the true explanation may be nearer than we think. Granting that diphtheria springs from a disease of the cow and is distributed by milk, we at once perceive that, while the railways have brought country milk and its corollary country diphtheria in great abundance to the towns, the complaint has arisen on every hand that the common people in the country can get no milk.

On the other hand, accepting the hint derived from the hospitals as to the effect of over crowding, and the strong evidence as to "school influence," which is also but a form of promiscuous over crowding, we are reminded at once that the modern tendency of our large towns is towards over crowded tenements, while country distress tends to the emptying of country homes.

The investigation of the causes of diphtheria must, then, not lie altogether in the laboratory. There is a vast field open also for clinical observers, and for sanitary and statistical experts.

Chicago has seventeen medical schools. No wonder it is called the "Windy City,"

What is Hypnotism.

Dr. J. Milne Bramwell read a paper entitled "What is Hypnotism?" at the recent meeting of the British Medical Association. He commenced by giving a short account of the mesmerists and the controversy between them and James Braid. According to the former, mesmerism was a physical power possessed not only by man but also by magnets and other inanimate objects; according to the latter, the phenomena were purely subjective and resulted from changes in the nervous system, not of the operator, but of the subject. At first Braid's explanation of the phenomena was a purely physical one, and since his day various attempts have been made to explain hypnosis from the same standpoint. Dr. Bramwell gave an account of three of these: 1. The Salpetriere theory, which explained hypnotic phenomena by the assumption of morbid nervous condition. This position has been rendered untenable, since very extended statistics have shown that 95 per cent. of mankind at large can be hypnotised and that the most difficult to influence are the hysterical and ill-balanced. Many of the errors of the mesmerists in reference to metals and magnets have been revived by this school and apparently from the same cause—viz., failure to recognise the influence of mental impressions during physical experiments. 2. Heidenhain's theory, which explains the phenomena by a cerebral inhibition, and entirely depends upon the assumption that hypnotic acts are performed unconsciously. The experimental demonstration of the conscious nature of hypnotic acts robs this theory of all value. 3. The theory of Mr. Hart which explains the phenomena by means of cerebral anæmia. There are two fatal objections to this view: (1) it has been experimentally proved that cerebral anæmia is absent during hypnosis; and (2) changes in the blood-supply of the brain are not the cause, but the result, of changes in the activity of the nervous matter. Braid's later theories explained the phenomena entirely from a psychical standpoint. He considered the condition essentially one of mono-idealism. The view was adopted by Professor John Hughes Bennett in 1851 and explained physiologically by the assumption of a functional disturb-

ance in the "fibres of association," with resulting suspension of the connexion between the ganglion cells of the cerebral cortex. Psychologically he explained it by "dominant ideas." A suggested idea acquired undue prominence because, owing to the disconnexion between the cerebral ganglion cells, it was unattended by its usual swarm of subsidiary ideas and lacked their controlling influence. The genesis of ideas was not interfered with, only their voluntary synthesis. At a much later date this psychological explanation was adopted by Professor Bernheim. His views differ, however, from those of Braid and Bennett in one important point. The latter pre-supposed a definite change in the nervous system as essential for the production of hypnotic phenomena, the former thinks that the only difference between the hypnotised and the normal subject consists in the increased suggestibility of the former and finds in "suggestion" an explanation of all hypnotic phenomena. Hypnotic phenomena, however, differ frequently in kind as well as in degree from those of the normal state, and the subjects who are most suggestible in hypnosis are generally those who had constantly resisted suggestion in the normal condition. Dr. Bramwell referred at length to Professor Bernheim's view that crime could be successfully suggested to the hypnotised subject, and pointed out that this belief rested upon laboratory experiment and the assumption that the subject was passing through a mental condition similar to that of the operator. A simple and important test had been omitted—namely, that of questioning the subject in hypnosis as to his own mental state. When this was done it was invariably found that the subject fully recognised the imaginary and experimental nature of the suggested crime. Dr. Bramwell held that neither the intelligence nor the volition was necessarily interfered with in hypnosis and that the subjects, instead of being ready to commit crimes, in reality developed increased moral sensitiveness. Dr. Bramwell pointed out that there existed a powerful argument against the explanation of hypnosis by means of mono-idealism or dominant ideas—namely, that a wide range of different phenomena could be simultaneously manifested by the hypnotised subject. The most re-

cent explanation of hypnotism—and apparently the most satisfactory—was to be found in the supposed tapping of some sub-conscious state and the evoking of a secondary personality. According to this view, the hypnotised subject, instead of being a stunted and maimed normal individual, in reality possessed far-reaching powers over his own organism which were not paralleled in the waking state. The researches of Azam and others have demonstrated the existence of alternating personalities without the intervention of hypnosis, while recent hypnotic observations not only show the existence of the alternating personalities but demonstrate also that they co-exist and communicate with each other. Before this theory can be accepted as a complete explanation of hypnotic phenomena an answer must be given to two questions: (1) What is the connexion between hypnotic methods and the production of the sub-conscious state? and (2) How did the secondary personality acquire its rich physical and mental endowments? To the first question, according to Dr. Bramwell, nothing approaching a satisfactory reply has yet been given. An attempt had been made to explain the latter by the assumption that the secondary personality was able to voluntarily control functions which in some lower ancestral form had been performed consciously, but were now, as the result of development, performed automatically. Dr. Bramwell pointed out that there were many objections to this explanation, chiefly in regard to the intellectual phenomena of hypnosis. The increased intelligence and higher refinement of the hypnotised subject could hardly be explained by the assumption that the lost power animal type had been evoked.

Pharmacodynamic Action of Chemical Combinations.

L. V. Nencki (Edinburgh Medical Journal) refers to this subject in relation to the chemical constitution. The action of a chemical agent depends upon its reaction with the tissues. Apolysin is a parphenetidin in which a citronic acid group has taken the place of an atom of hydrogen. It is an antipyretic and analgesic. It is impossible to say at present whether it reduces temperature

by any chemical action upon nervous tissue or whether it forms in different compounds with the products of micro-organisms. Many of the vital manifestations are merely oxidation and reduction processes, and often the action of chemical bodies only consists in influencing these processes. The incompletely oxidised bodies are poisonous to the living cells—such, for instance, as combinations of nitrogen, phosphorus, etc. They absorb oxygen and destroy the vital processes of cells. Thoroughly oxidised bodies are non-poisonous. Kencki has pointed out that by the introduction of the carboxyl group (COOH) into organic compounds of the aromatic series the poisonous action is much lessened and even destroyed. Thus, benzol is poisonous but benzoic acid is harmless. All hydroxyl derivatives of benzol are more or less poisonous, but the carbonic acid derivatives may be taken in large doses without injury, such as salicylic acid. Apolysin in which the citronic is substituted for the acetyl group may be taken in large doses without ill effect. The introduction of the sulpho-acid group into the molecule of poisonous aromatic compounds acts in the same way as that of the carbonic acid group. Treupel has also found that the derivatives of paramido-phenol or paracetamido-phenol only have an antipyretic or analgesic action when they are split up in the body into paramido-phenol or paracetamido-phenol. By the discovery of such facts as these a sure criterion of the value of new remedies is provided.

Hæmoglobinuric Fever.

Boison (London Lancet) records in detail three cases of soldiers who, invalided with severe malaria from Madagascar, were under treatment for hæmoglobinuric fever at Lyons. One of the cases died in a comatose condition, and an account of the necropsy is given. The onset occurs between midday and midnight; the shivering stage is intense and prolonged. Icterus rapidly develops, and is very well marked, but may pass away in three or four days. Vomiting, retching, subdiaphragmatic pain, temperature to 105° or more, and anxiety are present. The sweating stage is prolonged, the temper-

ature being always raised for the first two days, and in one case it became normal only on the fifth day. The destruction of red blood corpuscles is very marked; in two cases the blood count fell respectively from 1,700,000 to 670,000, and from 2,400,000 to 1,600,000 in twenty-four hours. The blood shows poikilocytosis, colorless red blood corpuscles, but hardly any pigment granules. The malarial parasite was present in extraordinary numbers, free and associated with red blood corpuscles, seven out of ten red blood containing it. Blood serum obtained by cupping showed spectroscopically the presence of oxyhæmoglobin, hæmatin, and urobilin. The urine contains no red blood corpuscles, but oxyhæmoglobin, methæmoglobin, and urobilin. Bile was present in the faeces and vomit, but not in the urine. The author considers the jaundice to be due to the presence of hæmatin in the blood, and to be not hepatogenous but hæmatogenous in origin. The hæmoglobinuria is preceded by hæmoglobinæmia; whereas in paroxysmal hæmoglobinuria there is, according to Lépine, no blood change, but a glomerular lesion of the kidney, the red blood corpuscles being broken up in their way through the tubules, etc. The hæmoglobinæmia is the mechanical effect of the malarial parasites. There was no evidence that the parasites formed a poison capable of destroying red blood corpuscles. In two experiments the serum from a malarial patient affected the red blood corpuscles of a healthy individual in the same way as the serum of a normal person did. The author does not find any evidence in favor of there being any inherent delicacy of the red blood corpuscles in his cases. In the fatal case the spleen weighed 1,100 grammes. The venous sinuses were dilated and crammed with yellow pigment. The circulation through the spleen was thus prevented. The hæmoglobin liberated during the access of the fever could not be transformed into black pigment, and therefore accumulation in the blood resulted. In other words hæmoglobinæmia and the resulting hæmoglobinuria were the result of the splenic lesions rendering that organ inadequate to perform its function of transforming hæmoglobin.

Dr. Phillips recommends the ligation of the dorsal vein in cases of atonic impotence

The Action of Ether and Chloroform on the Kidneys.

Babacci and Bebi, as a result of a series of clinical observations and animal experiments on the effects of ether and chloroform narcosis on the kidneys, find that in 29 per cent. of the cases after etherisation albumen was found in the urine, and in 18.89 per cent. after chloroform narcosis. In each case the urine before the operation was free from any trace of albumen. The etherised animals showed renal alterations consisting of diffuse hæmorrhagic nephritis, with preponderating glomerulitis and multiple renal hæmorrhages. This form of kidney disease has a tendency to spontaneous cure, and may be absolutely restored to the normal. In the chloroformed animal there occurred a parenchymatous nephritis with a tendency to chronicity and frequent extensive degenerative changes in the epithelium. Thus once more the superiority of ether over chloroform from the point of view of safety, whether at the time or after the operation, is shown; for although albuminuria was more frequent after ether, it was transitory, and not accompanied by such grave changes in the renal tissues as are seen after chloroform.

Metrorrhagia in Virgins.

Laroyenne distinguishes the majority of cases of profuse menstruation in young girls, which require no local treatment, from a minority in which the use of the curette is advisable. If after long attention to hygiene and a course of suitable tonics menorrhagia persists, interrupted by occasional amenorrhœa, granular or fungous endometritis probably exists. This disease is yet more safely diagnosed when the patient has been perfectly healthy and quite free from anæmia before profuse menorrhagia appeared, and equally free from evidence of diseased appendages after the local symptoms become marked. When the excessive menstruation causes debility, it is right to dilate and use the curette. A single application (immediately after the scraping) of cotton-wood soaked in equal parts of water and chloride of zinc is sufficient. Repeated cauterisations may easily cause atresia.

A Rapid and Convenient Method of Preparing Malarial Blood Films,

Patrick Manson (London Lancet, July, 1896,) suggest the following method for preparing films of malarial blood. Besides ease and rapidity, the method has other and obvious advantages.

He says; "Cleanse with spirits of wine or ether as many microscope slips as are likely to be required, and place them, arranged in one or more rows, on a table near the patient. Three or four oblong slips of very fine clean tissue paper, $1\frac{1}{2}$ by $\frac{5}{8}$ inch, are also prepared. The patient's finger is cleansed, and pricked in the usual way. A droplet of blood, about $\frac{1}{16}$ in diameter, is then expressed from the puncture and taken up by touching it with one of the papers, the blood being applied about $\frac{1}{2}$ inch from the end of the paper. The charged surface of the paper is then placed upon a glass slip rather towards one end. In a second or two the blood will have run out in a thin film between paper and slip. When this has taken place—not before—the paper is drawn along the surface of the glass. The same paper, without recharging, is placed in a similar way on a second slip, on a third, on a fourth, and so on. When exhausted, the paper is recharged from the finger as many times as may be found necessary. In this way 50 or 100 exquisitely fine films may be prepared in five or six minutes. Labels are then attached, and the slides stored away to await convenience. Before proceeding to stain, the blood is fixed by dropping a little absolute alcohol on the films. The slides are then dried, and stained with the borax (5 per cent.), methylene blue ($\frac{1}{2}$ per cent.), a few drops of the solution being applied for about half a minute. After washing and drying, cover glasses with zylol balsam are applied. The result is excellent.

If one wishes to search for crescents, a good plan is to make the films fairly thick, to fix with alcohol, and then to wash out the hæmoglobin with very weak acetic acid—2 or 3 drops to the ounce of water. The now colourless film is again washed, stained with methylene blue, and mounted in zylol balsam in the usual way. The field not being obscured by blood corpuscles, the large amount of

blood which this method of preparation enables us to pass rapidly in review greatly favors the quick finding of any crescents that may be present.

The same method of preparing blood films is equally applicable for the demonstration of other blood parasites."

Tolerance of the Gravid Uterus.

Mouchet (Medical Times and Hospital Gazette) had to recommend an operation on account of grave general symptoms in a young woman in whom pregnancy of about three months was complicated by a tumor of the left tube or ovary. On opening the abdomen, a rounded fluctuating tumor was found behind the uterus, which arose from the right ovary prolapsed in Douglas's pouch; this was tapped and removed with the left ovary, which was sclerous and adherent to the left cystic tube and to the intestine. The pregnancy was not interrupted, and a strong well developed child was born at term. Ozenne instanced 2 cases in which pregnant women had been subjected to the introduction into the uterus of an iodoform crayon and a laminaria tent respectively, and others in which uterine polypi had been removed during gestation with impunity. He did not deny that there was danger in penetrating the uterine cavity, or in operating, especially within the genital zone, on a woman during pregnancy, but this danger was not so serious as to justify non-intervention where good reason for operating existed, or when a condition could be removed that was likely to interrupt pregnancy at a later period.

Artificial Feeding.

Dr. Redwood in the Lancet takes the opportunity of drawing special attention to the practice that is becoming more and more prevalent amongst young mothers especially, and under various excuses, of withholding the breast from their children. If the usual substitute for the breast could be depended upon the children would have a better chance, but when to cow's milk that is already poor and probably watered (not to mention being loaded with all sorts of germs) a third or half more water is added, what can you expect but starvation? And this is no doubt the

true cause of death (syphilis is answerable for a few) in many cases certified as "congenital debility," "marasmus," etc., in artificially-fed children. Another starvation diet is condensed skimmed milk, which some of the poorer people buy in ignorance of its true quality on account of its comparative cheapness, and the sale of which ought to be prohibited unless plainly marked with large letters instead of small unnoticeable ones, as at present. Of artificial foods, of which there are many, only those that are malted should be allowed. But these are deficient in fat, and require the addition of cow's milk. The only food, as far as I know, that contains fat and does not require the addition of milk is Horlick's malted milk, which, therefore, appears to be the most suitable for infants that have to be artificially fed. It is a not uncommon practice to recommend the boiling of cow's milk before use, but boiling renders it less nutritious and more indigestible, and it has been found that children do not thrive on sterilized milk, and that in some cases scurvy has developed on its continued use, the result being that in Germany and America its use has greatly fallen off. In France, where they do many things better and more thoroughly than we do, a severe penalty is incurred by any one giving infants under one year of age solid food unless ordered by a physician—written prescription—and nurses are forbidden to use feeding bottles with rubber tubes; and in that country and Germany it has to be stated on death certificates whether the child was breast or artificially fed.

A New Application of Skiagraph.

Kronberg (Edenbergh Medical Journal) arguing from the comparative innocuousness of metallic mercury when introduced into the alimentary canal, and its high atonic weight and associated opacity to x rays suggests its use in the diagnosis of affections of the internal viscera, especially intestinal obstruction. The method recommended is to administer a certain quantity of the metal, and to observe its position in the organs by means of skiagraphy or cryptoscopy. Kronberg has been able to fill practically the whole intestine of small animals with mercury; in larger ones and in the human cadaver he

can follow the course of the metal through the gut. In actual practice he considers that one to two hundred grains of mercury should be given in cases of intestinal obstruction from volvulus, intussusception, faecal masses, paralysis, etc.; Bettelheim has shown that this alone is in many cases sufficient to effect a cure, and it is claimed that with the aid of Roentgen's method the seat, and often the cause (for example, in cases of ascarides and intussusception) of the obstruction can be diagnosed. The recent application of fluorspar to skiagraph has increased the sensitiveness of the rays more than a hundred fold, and reduced the exposure proportionately. By this means the human trunk is also rendered skiagraphically transparent, and further researches will no doubt lead to still greater improvement in this direction. Kronberg further points out that the use of mercury may be very valuable in the diagnosis and localisation of fistulous tracks and their ramifications in inaccessible parts of the body. In cases in which the use of mercury might be dangerous, he suggests the substitution of the rare metal gallium, which melts at 30° C., and has only half the atomic weight (and therefore opacity) of quicksilver.

One Hundred and Ten Operations for Retrodisplacement of the Uterus with Subsequent Results.

Dr. Laphorn Smith, of Montreal (Canada Medical Association, Aug. 26, '96) read a report of one hundred and ten operations for retrodisplacement of the uterus, of which forty-two were Alexander's operations of shortening the round ligaments, and sixty-eight ventro fixations or suspenso-uteri operations. He said that he now felt justified in coming to certain conclusions concerning these two operations since he had been performing them for over six years. The first Alexander's having been performed on the 23rd January, 1892, and the first ventrofixation on the 18th March, 1890.

Most of the patients had been seen and examined not only by himself but also by many other physicians and students attending his clinics, while the few who had not been seen had been heard from through the physicians who had sent them to him. The results of both

operations had on the whole been very satisfactory, with the exception of two cases, in which the ligaments broke, being very fatty, and also partly owing to the method of operating, which he has since improved; in one of these cases he immediately performed ventrofixation with good results; the other was a complete failure, having declined further operation. Also in one of the Alexander cases the uterus remained in good position for six months, when it began to fall a little. The failures all occurred among his earlier cases, none having occurred among those operated upon during the last two years. So far no case of hernia had resulted from the operation. The ventrofixations gave even better results than the Alexander's. They were performed for the most part upon women who not only had retroversion with fixation, but the ovaries and tubes were at the same time prolapsed and bound down by more or less adhesions. In many of these also there was laceration of the cervix and perineum with cystocele and rectocele. In those cases in which he had performed seven operations at one sitting occupying from an hour and ten minutes to an hour and a half, he had obtained the most gratifying results. These operations were: 1st, rapid dilatation with Goodell's dilator; 2nd, curetting with Tartin's curette; 3rd, repair of lacerated cervix by Emmett's method, or amputation by Schroeder's method; 4th, tightening up the relaxed anterior vaginal wall by Stoltz's method; 5th, repair of the perineum by Hegar's method; 6th, removal of diseased tubes and ovaries, and breaking up all adhesions binding uterus down; and 7th, scarifying the anterior surface of the uterus and posterior surface of abdominal wall, and stitching the uterus to the latter by two fine buried silk sutures, most carefully sterilized. The disasters following ventrofixation were two hernias and one relapse, all of which were subsequently remedied by a second operation. At the present time Alexander's operation has no death rate, while ventrofixation, while it has not any death rate in simple non-adherent cases of retroversion, yet it must have a small death rate, at least when it follows the removal of very bad pus tubes.

He had performed both Alexander's

operation and ventrofixation for prolapse as well as for retroversion, and as the results were excellent provided the pelvic floor was at the same time repaired, he much preferred these operations to vaginal hysterectomy for prolapse, an operation which he had performed a few times, and found easy, but which he hardly felt justified in doing.

Although several of the Alexander's had subsequently become pregnant, in no case did any outward accident happen. But he had heard that some one on whom he had performed ventrofixation had subsequently become pregnant and aborted, but he had so far been unable to verify it. He was not aware that any of them had even become pregnant. This was probably owing to the fact that he had in most of them removed the tubes and ovaries, while in those in which he had left one or both ovaries and tubes, they were diseased and unable to functionate. He was frequently asked which of the two operations he preferred. This was difficult to answer. Alexander's was safe, but he preferred ventrofixation, because it had given him the best results. He would probably continue to do Alexander's operation in young married or marriageable women in whom the ovaries and tubes were perfectly free from organic disease; while he would reserve ventrofixation for women who were sterile or who had marked adhesions, and who had suffered so much and so long in spite of treatment that the appendage had to be removed.

Neuritis Complicating Dislocations of the Shoulder and Elbows.

Velder (Transactions of the Medical Society of the State of New York, 1896,) points out that in dislocation of the humerus the head of the bone is very liable to press on the nerves of the brachial plexus, and that in like manner the ulnar and median nerves may become involved in dislocations of the elbow. The symptoms caused by such pressure may present varying characteristics according as the trophic, motor, or sensory affected. The results of the nerve injury may persist for a long time after the restoration of the joint, or the full effect of the nerve lesion may not appear until after many months. In dealing with a dis-

location the surgeon should recall to mind the anatomical relations of the parts, so as to avoid every manifestation that might increase the injury to the nerve trunks pressed upon by the displaced bone. In dislocation at the shoulder, if the elbow be pulled directly outwards from the side of the body, the humerus will act as a powerful lever, the fulcrum being at the point of contact with the scapula or clavicle, and increased tension being exerted in the very direction in which the atillary nerves are already stretched. In the great majority of cases the nerve injury caused by dislocation is not serious. The graver and more persistent forms are usually due to a too active and early use of the limb after a dislocation. Stiffness of the joint, which may be readily treated with good results, is regarded as a lesser evil than deprivation of nerve supply.

Treatment of Syphilis.

In a paper read before the Philadelphia Chapter of the Alumni Association of the Jefferson Medical College, by Dr. John Lindsay, on the Treatment of Syphilis, the following points were noted:

The writer advises that the patient's habits as to alcohol and excesses of any kind, as women, be regulated. Also, his alimentary tract be put in the best state possible, special care to be given to the teeth before any mercurial course was begun. Only after the appearance of secondary symptoms was mercury to be given, since, until they were manifested a positive diagnosis of syphilis could not be made.

Attention was called to the fact that while a patient was under treatment for syphilis, it frequently happened that specific medication had to be suspended for a time, and the patient's immediate condition attended to, and not the disease syphilis. The intolerance shown by the scrofulous, the cachetic, or those having chronic renal disease, to mercury was alluded to. Permission for marriage was not to be given until three years after infection, and then only when the patient had been under constant medical care with good results. The rapid mercurialization of the patient was said to be best effected by the hypodermic method.

Of the different plans of treatment, the

presenting of mercury by the mouth was advised as best in the average case. The protiodide was the salt recommended to be given in tonic doses for eighteen months. During the following nine months mixed treatment was to be given, with occasional intervals, while during the third year iodide of potassium alone was allowed off and on. During the fourth year the patient was to report himself occasionally to the medical adviser, and if no symptoms appeared could then be discharged.

Alcoholism.

A very valuable report has recently been drawn up by a French specialist on the spread of alcoholism and its effects. In the various institutions of the Department of the Seine, in France, 775 persons suffering from alcoholism were received in 1894—624 men and 151 women. The form of alcoholism in the case of the males comprised 282 cases of alcoholic delirium, 332 cases of chronic alcoholism, and 10 cases of absinthism—a form of disease which appears to be almost exclusively confined to France and Algeria. Among the women there were 90 cases of alcoholic delirium, 60 of chronic alcoholism, and 1 of absinthism. In reviewing these cases Dr. Magnan says: "As a consequence of alcoholism, we find an increase of general paralysis, and, what is still more serious, an augmentation in the number of idiots, of youthful epileptics, whose family history reveals almost always the alcoholism of the father, and sometimes of the mother, and frequently of both." It becomes, therefore, a social duty, and a necessity in the interests of public health, to endeavour by all the means in our power to stay the ravages of this scourge, which is worse in its effects, because these effects are more far-reaching, than the most devastating epidemics.

The following is a part of a letter that we very much appreciate:

"The superlative excellence of THE CHARLOTTE MEDICAL JOURNAL makes it a *sine qua non* to the up to date general practitioner of medicine or surgery."

E. H. RICHARDSON, M. D.

Atlanta, Ga., Sept. 1, 1896.

Prostatic Hypertrophy.

David Mac Ewan (British Medical Association July 29, '96) said that as long ago as 1856 Mercier had suggested the operative treatment of an enlarged prostate which was causing obstruction to the outflow of urine. The method proposed was to remove part of the enlarged gland through the urethra—"urethra prostratomy." Then Sir Henry Thompson and Mr. Reginald Harrison had advocated perineal section and drainage. A further step had been suggested by the occasional accidental removal of a pedunculated prostatic outgrowth during an attempt to grasp the stone in the lateral lithotomy. This led to perineal prostatectomy. A little later the suprapubic incision was employed, and later still the "combined method" of Bellfield of Chicago, of Nicoll of Glasgow, and of Alexander of New York. But whatever form of prostatectomy was employed the mortality was still high, and even now reached 20 per cent. Later still a newer method had been brought forward, which depended on the obliteration of the function of the testis. In 1893 Professor White of Philadelphia read a paper before the American Surgical Association, in which he suggested that the testes had an influence over the nutrition of the prostate similar to that exercised by the ovaries on the uterus, and that just as oöphorectomy leads to the diminution in size of the fibroids of the uterus so would castration lead to atrophy of an hypertrophied prostate. In Lay, 1895, Professor White read a paper in which he gave the results of 111 cases in which removal of the testis ("orchectomy") had been done for the purpose of causing the atrophy of an hypertrophied prostate. Of these 111 cases, in 82 per cent. rapid atrophy was said to have occurred, in 52 per cent. cystitis had either disappeared or had been greatly lessened, in 66 per cent. there had been a return to vesical contractility, in 83 per cent. there had been marked amelioration of troublesome symptoms, and in 46 4 per cent. there had been a return to practically normal conditions. These results sound very well, but unfortunately in very many of the cases the information on which the statistics were based was so vague and

scanty as to deprive the statistics of all value. In many of the cases important auxiliary treatment, such as drainage, had been employed, and this must have been responsible in great part for the favourable result. Still, the fact remains that in individual cases the functional power of the bladder may be re-established after it has been in abeyance for a year, for five years, or even for still longer. This is, indeed, a wonderful result. Dr. MacEwan has collected 52 cases of orchectomy operated on since Professor White read his paper; of these 42 were said to have resulted more or less successfully; of the 10 unsuccessful cases in 4 there was no improvement and 6 died. Dr. MacEwan has himself operated in 5 cases; of these 3 were treated by double orchectomy and 2 by resection of the vas deferens. The first case of orchectomy was a man sixty-four years age; for seven years he had had frequent, painful, and feeble micturition. For the past two years he had to use a catheter occasionally; the urine was alkaline and contained pus; the prostate was much enlarged, but soft. The urethra measured $9\frac{1}{2}$ in. Double orchectomy was performed, and in two months the prostate had diminished to less than half its original size; the urethra was nearly an inch shorter; he passes urine with ease three times a day and once or twice at night; the urine shows only a mucous deposit, and his general health has much improved. The second case was an old man aged eighty-four years. For two years difficulty of micturition had been present; for a year and a half all the urine had been passed by the catheter, which was required every three hours. The urine contained pus. The prostate was enlarged and hard; the urethra measured $10\frac{1}{2}$ in. Two months after double orchectomy the prostate was diminished by one-half; the catheter is required only once in twenty-four hours, the urethra is only $9\frac{1}{2}$ in. in length, the urine is clearer, and the general health is much better. The third case was that of a man seventy-one years old. For ten years he had had difficulty in micturition and seven years he had been unable to pass any urine without a catheter, which was latterly introduced about every two hours. There was only slight cystitis. The prostate was very much enlarged

and projected greatly into the bladder; the urethra measures $10\frac{3}{4}$ in. Three months after orchectomy he is still entirely dependent on the catheter, but it is only required every six hours, it can be used much more easily, and his general health is good. The question now arises, How does this diminution of the prostate come about when the testes are removed? Griffith has suggested that the testis has two functions—the one is to control and determine the characteristics of the male sex, and the other is to produce spermatozoa for the reproduction of the species; the effect of removing the testis is to be accounted for by the withdrawal of this hypothetical product. White considers it probable that the “vitalising function” ceases on the attainment of manhood, but probably it continues during the whole of life, or at all events longer than the power of forming spermatozoa. One case has been recorded in which spermatozoa were found in the testis and yet orchectomy caused atrophy of the prostate. Professor Waymouth Reid of Dundee suggests that the epithelial-like cells which form large continuous groups in the interstitial tissue (to which no function has hitherto been assigned) may possibly be the elaborators of this product. Griffith says that in involution of the testis in the old, the intertubular connective tissue remains unaltered in the first stage and even in the second stage it contains many connective tissue cells. The other theory of the atrophy of the prostate is that it is brought about through the influence of the nervous system; this might be accepted if it could be shown that unilateral orchectomy will cause unilateral atrophy of the prostate, but the statements are very divergent as to this point. Orchectomy is occasionally followed by marked mental disturbance, but this is never seen when the testis is removed for disease. Dr. MacEwan said that he had no experience of unilateral orchectomy. The results of resection of the vas deferens are very divergent. Dr. MacEwan said that he had had no experience of unilateral orchectomy. The results of resection of the vas deferens are very divergent. Dr. MacEwan has performed it twice; the first case died within a week from uræmia, the second case was sixty-five years of age, and for seven years had

had trouble with micturition. The catheter had had to be used entirely for the last three years and latterly every three hours. The urine contained pus and the prostate was much enlarged; the urethra was lengthened. Two months later the catheter was needed only every five hours; the urethra was shorter and the urine clearer. The testes did not seem to be atrophied. The atrophic changes in the prostate appear to take place slowly, and it is possible that the effect may be due to the inclusion of the nerves around the vas. The conclusions arrived at may be formulated as follows: 1. In many cases castration causes more or less atrophy of the prostate. 2. Atrophy occurs most common when the prostate is soft. 3. It is of most value when the enlargement is general. 4. Cystitis may be relieved or cured. 5. In marked cystitis drainage is better. 6. It may do away with the necessity of the use of the catheter. 7. Or the catheter may be required less frequently. 8. Resection of the vas acts more slowly, but the effect is similar.

Relation of Subsoil Water to Diarrhoea.

The researches of Dr. Ballard and of Dr. Tomkins have demonstrated the fact that a definite soil temperature plays an important part in the etiology of this disease. So clear, indeed, has such relationship of cause and effect been considered in many quarters that those who are interested in sanitation are apt altogether to overlook the possibility of variations in the level of the subsoil-water playing some part in the matter. It has, I think, been shown very definitely that the temperature of the atmosphere at any given time itself plays no part in the series of events leading to an epidemic of diarrhoea other than that comparatively slight influence which it exerts on the range of the subsoil temperature. Thus Mr. Waldwin Latham has put on record the fact that while the average temperature of the air at Croydon in 1854 for the months of June, July, and August was 59.4, and for the same months in the following year it was 16.1, yet in 1854 the deaths from diarrhoea were over five times as numerous as in 1855.

It is obvious that in the absence of some disturbing element the temperature

of the upper layers of the soil must be dependent on that of the atmosphere above, the only difference being that the maximum and minimum points are more and more delayed and that the total range is gradually diminished as a greater distance from the surface is reached. If, however, the soil be saturated with moisture it will not heat as rapidly as if it were comparatively dry, and consequently an average atmospheric temperature, which when the soil is dry would be sufficient to bring up the soil temperature to that point which is necessary for the development and maturation of the germ of the disease, will by no means exert a similar influence when the soil is wet. In this way is probably to be found the explanation of Mr. Baldwin Latham's observation that diarrhoea is apt to be more prevalent when the subsoil-water is low. As I have endeavoured to show, however, this in no way militates against, but rather tends to support, the proposition, so ably expounded by Dr. Ballard, to the effect that whatever the air temperature may be diarrhoea does not appear in epidemic form until a definite temperature is reached at a given depth below the surface of the soil. Snow has also shown that in the city of Buffalo cholera infantum is much more prevalent in a dry than in a wet season, and he suggests that this is probably due to the fact that in a dry season the temperature of the soil would be likely, other things being equal, to reach a higher point than in the opposite case. This same fact has been insisted on by Fodor, who states, as the result of his experience, that an exceptional rainfall occurring in the midst of even the most violent epidemic will be followed after from eight to ten days by a large reduction in the death-rate, but that on cessation of the rain the disease may assert itself afresh. The result of Mr. Power's investigations are also in harmony with this statement.

Marmorek's Serum Scam in Scarlet Fever.

Josias, bearing in mind the fact that most the complications of scarlet fever are due to infection with the streptococcus, treated some cases with antistreptococcic serum. In the first period 49 children were injected with an average

dose of 5 c.cm. of the serum obtained by Nocard from a sheep. Except urticaria, no bad symptoms were observed. In the second period 96 children were injected with an average dose of 10 c.cm. of the serum, some, however, receiving as much as 90 c.cm. This serum was obtained from a horse, and was much more active than that from the sheep. Streptococcic abscesses at the seat of inoculation occurred in 4, lymphangitis in 8, polymorphic eruptions in 10, and purpura in 7 cases. As a result of this treatment Josias thinks pseudo-membranous angina, unaccompanied by suppurating glands, improved more quickly than usual. It had no effect, however, on suppuration, even though due to the streptococcus, and none on albuminuria, temperature, or the general course of the disease. The mortality in cases treated without serum was 5.81 per cent.; in those treated with serum from the sheep 2.08 per cent.; and in those receiving serum from the horse 5.31 per cent. Thus the lowest mortality was observed in those treated with the serum obtained from the sheep, which was the least active of the two.

Shock After Abdominal Section.

Shock after Abdominal Section is regarded by Boise not as a paresis of the nervous system, as has been usually claimed, but rather that it is an excessive irritation of the entire sympathetic nervous system, the result chiefly of an excessive stimulation of the vaso-motor nerves. This results in over-stimulation of primary vaso motor and cardio-innervating centres causing a primary rapid and weak action of the heart. At the same time it excites an undue contraction of the arterioles, and causes the blood to be rapidly driven over into the veins, which thereupon progressively expand, thus preventing the blood from returning to the arterial system as rapidly as it should. Nutrition is therefore interfered with, and the nervous system more or less profoundly depressed. From such deductions he concludes that the following methods should be adopted in the treatment of surgical shock: (1) Inhalation of nitrate of amyl, not only while the patient is on the operating table but repeated afterwards at intervals. (2) The hypodermic injection of nitro-glyce-

rine in large doses, one-fifteenth to one-twentieth of a grain, repeated until the effect on the pulse is evident, should be the rule. (3) Repeated injections of hot saline solution, given by high enema, so that the fluid will pass into the transverse colon, are most valuable adjuvants, not only tending to relieve vaso motor spasm, but also supplying to the circulation the fluid lost by hemorrhage during operation. (4) Hypodermic injections of strychnia (one-twentieth to one-fifteenth of a grain) assist markedly, and an injection of morphia may be given to advantage immediately before operation.

Enlargement of the Thymus.

Biedert (Edinburgh Medical Journal) discusses this condition as a cause of death with croup like symptoms, and records a case in an infant aged 10 months. In spite of the negative results of examination it was looked upon as a cause of croup. A moderately pronounced projection of the upper portion of the sternum was, however, noted, and here the percussion note was also impaired. As intubation gave no relief tracheotomy was performed. Later attempts to get over the obstruction with a catheter revealed an almost insurmountable resistance in the trachea. At the necropsy there was great swelling of the thymus, which projected against the upper end of the sternum. Some bronchial glands were also much enlarged. After the removal of the thymus there was no evident remains of the pressure upon the trachea, but there was no other obstruction whatever in the air passages. Sections of the thymus showed that both the follicles and the interstitial tissue were occupied by round cells, and that there was a greatly increased vascularity. This enlargement of the thymus has been found in other reported cases to be the direct cause of death. The author then refers to the relation between enlarged thymus and spasm of the glottis. Friedleben proved that a constant causal connection between enlargement of the thymus and spasm of the glottis could not be established, but his statistics showed that in fatal cases of spasm of the glottis a large thymus was more frequently found than a small one. The cause of death must lie below the larynx in cases of en-

larged thymus, and is due either to pressure on veins with the consequent circulatory obstruction, or to pressure on the trachea and bronchi. In the case here referred to both factors were present.

The Duration of the Period of Contagion of Syphilis.

Mr. Jonathan Hutchinson (Int. Congress of Dermatology) assumed that it was generally acknowledged that during the existence of the primary and secondary phenomena, the blood and all inflammatory secretions contained the specific virus of syphilis and were capable of conveying it. The question was the period at which, as a rule, these fluids cease to contain the virus and to be capable of conveying the disease. It was also assumed as an acknowledged fact that parents (whether father or mother) having suffered from syphilis might convey the disease to offspring, and the question was raised as to how long this possibility might last and when it usually ended. It would be freely admitted that exceptional cases of long-continued possibility of contagion might occur in reference to the communication of syphilis, both by direct contagion and by the contamination of the foetus. He asserted, however, that, as a rule, it was not much longer than a year and but very rarely more than two years. He further maintained that it was probable that the vigour of the contagious element, or perhaps its abundance diminished in ratio with the duration of the disease, and that contagion was far less certain during the later stages of the secondary period than during the earlier ones. The great rarity of cases in which during the tertiary period (after the end of the second year) suspicion arose as to either contagion or hereditary transmission was strongly insisted on. Cases were cited to illustrate (1) Exceptionally long periods of survival of contagious properties; (2) Exceptionally long periods in reference to hereditary transmission; (3) Manifestations of great potency of the virus (as in series of vaccino-syphilis cases) in reference to the stage of the disease, (4) The escape of those who were known to have been exposed to imminent risk, as bearing upon the doctrine of particulate germs.

Sarcoma of Pelvis Removed During Pregnancy.

Arndt (British Medical Journal) in a report of recent work in the Göttingen Lying-in Hospital, relates a case where the patient, aged 35, had borne four children normally, but at her fifth confinement in August, 1894, craniotomy was needed, as the foetal head was obstructed by a tumour "as big as a small apple." She became pregnant again, and consulted the physicians at the hospital late last autumn. The fundus uteri nearly reached the umbilicus, the foetal heart could be clearly heard. A mass, as hard as bone, could be felt from the vagina, the canal of which was deflected to the left, whilst its mucous membrane was not adherent to the new growth. It was found that the tumour was not absolutely fixed, but was attached by a very broad pedicle to the ramus of the left ischium, the spine and the part of the same bone over the acetabulum part of the obturator membrane, especially the lesser sacrosciatic ligament. On December 5th, 1895, Runge operated. A vertical incision, 4 inches long, was made through the vaginal mucous membrane, and the tumour was then enucleated, partly by the finger and partly by scissors. Then the vaginal wound was closed with sutures, iodoform gauze being employed to pack the cavity left behind. The tumor seems to have been a periosteal sarcoma. The patient went home, and was safely delivered at term. On May 3d, when she was last examined, there was no sign of recurrence.

Cerebro-Spinal Meningitis.

Heubner believes that the view which would attribute the epidemic disease to the pneumococcus is not satisfactory. Weichselbaum found in one epidemic a special micro-organism concurring in twos and fours, lying with their broad sides apposite and not lanceolate. It was found chiefly within the cells; hence the name "meningococcus intracellularis." Heubner has had a case in which it was possible to demonstrate the presence of this micro-organism both during life and after death in an infant, aged $1\frac{1}{2}$ years. By spinal puncture a turbid, and sometimes distinctly purulent, fluid was obtained, and in the pus cells a diplococcus

or tetracoccus was found. This micro-organism was then obtained in pure culture. The injection of the fluid (obtained by spinal puncture) into the vertebral canal gave negative results in rabbits and guinea-pigs. In a young dog the result was doubtful, but in two goats a meningitis was produced, and the meningococcus was obtained from the exudation. Thus in susceptible animals, as in man, the meningococcus produces the same disease. The author showed by injecting the pneumococcus obtained from a pleural effusion that the virulence of the meningococcus was less than that of the pneumococcus. This corresponds with clinical experience, which shows that a pneumococcus meningitis is rarely recovered from, the fatal result occurring in a few days. In epidemic cerebro-spinal meningitis, on the other hand, only one-third to one-half of the cases die. The recognition of this form of meningitis by the help of spinal puncture is of considerable importance.

Phthisis Decreasing.

Whilst there are some grounds for fearing, notwithstanding the explanation of "improved diagnosis," that cancer may be on the increase, there seems to be no doubt at all that phthisis is decreasing. A period of 42 years, with careful calculations of statistics, is long enough to justify a generalisation; and that is the period which Dr. Tatham, following in the footsteps of Dr. Farr and Dr. Ogle in the publication of a "Decennial Supplement," has brought under review. From 1853 to 1895 there has been a continuous decrease in the mortality from phthisis of a very marked kind. Of course, this also may be partly accounted for by "improved diagnosis;" for, as is well known, whenever the ordinary practitioner of the old school was in doubt about a diagnosis for a case of wasting disease, he wrote down phthisis without of moment's hesitation. But this notwithstanding, it seems certain that phthisis is less prevalent among us than formerly; and common experience is in accord with Dr. Tatham's figures. Whereas in 1853 there was a phthisis mortality of 2,984 per million, the mortality in 1890 had fallen to 1,082; and this rate of de-

crease has been continuously maintained up to the present time. Is this due to improved methods of treatment, or to improved general sanitation? We incline to think it is due to both. There is no doubt that incipient phthisis is much more decidedly recognised now than formerly, and that climatic and other treatment is much more prompt and thorough. But it seems equally clear that in consequence of improved general sanitation, and especially of the housing of the poor in better homes, and drier and more wholesome sites, the prevalence of phthisis is greatly diminished throughout the community. All this may be claimed as a triumph for scientific medicine. And, as we so often insist here, the doctor, in labouring so hard to prevent disease, is "killing the goose which lays the golden eggs." But what thanks or recognition does he receive at the hands either of the public or the State?

The Relation of the Digestive System to Gout.

Dr. Boyd in the *Lancet*, August 8th, 1896, says:

In the acquired form of gout the digestive system plays the *role* of chief factor and, according to Dr. Haig, the only one in the production of uric-acid-æmia. We have to thank this observer for the sidelights he has thrown on the pathology of uric acid, for the patient labour he has bestowed in experiments on himself to show the dietetic causes which produce an excess of it in the blood, and for the ingenious theories he has brought forward to explain its behaviour and its various effects, both in the blood and out of it. He has established the important fact that uric acid exists in the blood in a definite ratio to urea, which in health is about 1 to 35, and that any increase of it above this proportion constitutes a condition of uric-acid-æmia, its future behavior as to elimination or increase being altogether regulated by the alkaline or sub-alkaline reaction of the blood and by additions from the dietetic side. He has, in fact, added to and confirmed the valuable investigations into the chemistry of uric acid made by Sir A. Garrod, Sir William Roberts, and Professor Latham. Whilst I fully agree with him that the

chief causes for the excess of uric acid come from the digestive side I can not agree with his views that derangements in the various parts of the body (the digestive tract included) are only the results of the presence of uric acid and are not the cause of its production. From my point of view embarrassment of function in any part of the digestive tract, arising either from dietetic excesses in the first instance, or from gradual lessening of functional activity as age advances, or from changes in the normal secretion of the glands that take part in it—the results of disease or derangement—is the cause of this defective metabolism which leads ultimately to the over production of uric acid. Dietetic excesses may be committed with impunity by the young and also by the healthy adult as long as the activity of healthy metabolism is unchecked by derangement or disease, but if catarrh of the stomach induces fermentation in the gastric contents and the formation of fatty acids then the first evidences of a defective metabolism in nitrogenous compounds commence and uric acid begins to manifest its presence. If alcoholic or dietetic excesses lead to the stomach catarrh becoming permanent, or the liver functions becoming deranged, there is no longer a healthy rebound in the metabolism, the waste products accumulate; uric-acid-æmia is established, and a trivial accident or lowered nervous influence, the result of some illness, may determine precipitation in the joints. The liver plays a most important part in the metabolism of nitrogenous compounds and we must all admit that its derangement is followed by a lessening of this metabolism. The literature of the subject has established these facts; but I may again allude to the observations of Murchison in his *Croonian Lectures on Functional Derangements of the Liver*, where he points out that lithiasis is the result of a faulty metabolism of that organ due to functional derangement; that this symptom occurring in children generally indicates a transmitted tendency to imperfect function on the part of the liver; and that the subjects of it are generally the children of gouty parents. I may also allude to the chemical investigations of Professor Latham relative to defective metabolism on the part of the liver, and to Sir Dyce Duckworth's opinion that

"the liver is the organ in which in health uric acid is chiefly formed, and it is probably to derangement of function in this gland that we must look for over production of this substance." Another portion of the digestive system which contributes a very considerable element in this defective metabolism is the intestine, and the researches of Bouchard in his work "Auto-intoxication" have abundantly proved that many toxins may be absorbed from it.

Experimental Research on the Course of the Optic Nerve Fibres.

Dr. C. H. Usher and Dr. George Dean (London Ophthalmological Society July 18, '96) communicated an account of an Experimental Research on the Course of the Optic Nerve Fibres. The method employed was that of wounding the retina and tracing the degeneration in the nerve fibres by means of Marchi's osmium bichromatic method. The wounds were made by a Graefe's knife or galvano-cautery, the ophthalmoscope being used to enable the operator to produce the lesion in the part of the retina selected. The first part of the communication dealt with the results obtained in a number of rabbits. As seen by the ophthalmoscope the wounds in the fundus presented the appearance of a white elongated gap with sharply defined edges. Its length was from about three-quarters to one and a-half of the optic disc diameter. Among the lesions were included division of the anterior and posterior hands of opaque nerve fibres. In all the cases a tract of degeneration was found in the nerve corresponding to the wounded retina. The degeneration occupied a situation in the nerve corresponding to the part wounded, for example a lesion in one quadrant of the retina caused a degeneration in the corresponding quadrant of the nerve. The degeneration maintained the same situation throughout the whole length of the nerve. In the cases where the opaque bands were increased the degeneration was found to be denser than in the cases where other parts of the retina were wounded. In every case minute black points were found in the nerve of the eye which had not been wounded. These points were diffusely scattered, and much less prominent than those on the side of

the lesion; they were found to stand in direct ratio to the amount of degeneration in the nerve of the eye operated on. The second part of the communication consisted of results obtained in the case of a monkey, in which a lesion by means of the galvano-cautery was made between the optic disc and the yellow spot. A well-defined area of degeneration was found in the corresponding optic nerve. It lay externally in the anterior part of the nerve, whereas it occupied a central position in the posterior part of the nerve. Its shape in the anterior part of the nerve was that of a narrow isosceles triangle, with its base at the periphery and its apex towards the central vessels. Behind the entrance of the retinal vessels the area gradually became central; in this situation it assumed a somewhat irregular form with angular projections. Near the chiasma it was still in the centre of the nerve and was crescent shaped. In the other optic nerve small black points were present similar to those found in the case of the rabbits. The interest of this case in relation to the cases of toxic amblyopia and in relation to the course and origin of the macular fibres was indicated.

Drainage After Laparotomy.

Drainage after Laparotomy has become much less frequent. Czempin (The Hospital, July 18, 1896,) divides the cases in which drainage may be indicated into two great groups. Firstly, operations upon non-infectious tumours, with unfavourable complications caused by the condition of the relations of the operation wound, such as intraligamentary new growths resulting in the necessarily extensive separation of the pelvic tissue; and, secondly, operations upon infective tumours, or those thought to be infective, and operations through injury to the intestine, the escape of pus, or decomposed fluids. In the first group he is doubtful whether drainage does good, and in the second he is inclined to believe that if virulent organisms are present it can scarcely save life, and if the virulence is extinct it is not necessary. Grandin speaks against the employment of glass tubes in drainage. He has given up the use of iodoform gauze because idiosyncrasy, which cannot be determined beforehand, not infrequently leads to poison-

ing. Where packing, as well as subsequent drainage, is the indication, he uses a long strip of plain, sterilized gauze about three inches wide. Where simple drainage is the aim, the ordinary sterile candle-wick or lamp-wick answers admirably.

Cervical Adenitis.

Dr. Madoren believes that from a diseased throat morbid influences may be conveyed in other directions than to the ear. The most common of these is to the cervical glands. He says in most instances, if the diseased throat is treated early and well, the inflamed gland subsides, but very often the early stages are overlooked, and the suppurating or tuberculous glands become themselves a source of further remote disease and require treatment for the avoidance of this. At no stage, however, should the surgeon fail to look for the original seat of trouble. Given an enlarged necked gland, the ulcerated throat or mouth, the suppurating ear, the diseased tooth, or the eczema of the scalp should be looked for and treated. If diseased glands be left alone they commonly cause years of ill health, with constant risk of consecutive development of disease elsewhere. It has, therefore, been the practice of recent years to get them away as soon as it became apparent that the enlargement was more than a mere passing state. This removes the first line where infection has halted, with the result that in many instances it ends the disease and allows the patient to pick up general health. In speaking of glands I am classing together those that are tuberculous with those that are suppurating for the reason that both call for the same treatment. But the results are much better with the latter than with the former. Even after a free and careful removal a considerable proportion of tuberculous glands are followed by further developments of tubercle. On the other hand, if we treat suppurating glands early, when they can be removed intact, primary union may be counted on with small liability to return. Even when the glands have been long enlarged, and have contracted adhesions to all the structures around them. when they are friable and break down during removal, and when the wound is a deep and complicated one, with thorough removal of

diseased tissue and free douching before closing the wound primary union still occurs in the large proportion. If it does not, however, tardy healing, repeated gland abscesses, and operations are apt to make slow the progress of the case to final cure. But the result on an average is better than that of the unchecked course of the original disease. The operations are usually troublesome, much more so than many with high-sounding titles and described as capital. The glands are placed deep and wide among important structures. When the conspicuous gland or glands are removed others previously undetectable come into view, till often the dissection leads far from the original incision. The best course is to face these difficulties and get the glands out whole if possible; this I find much better than incising and emptying the capsule. With all deep glands it is a good plan to tie the attachment before dividing it, thus saving a tedious search for some bleeding vessel with its mouth buried in cellular tissue. I have had the opportunity of watching for years the after-history of many of these cases, for suppurating glands are common here. The results on the whole are very satisfactory; a great many got well at once. No other gland takes on diseased action and the cure is permanent. Another set of cases make slow recoveries, but yet get quite well in the course of a few months. A third small class get fresh involvement of long after the original operation; they require repeated operations, but eventually end in cure if their health conditions are fairly satisfactory. The story is somewhat different with tuberculous glands. The amount of success is much less. A few even seem to get harm from operation, general tuberculosis occurring, presumably from infection during operation; others, again, develop it generally or locally elsewhere at some distant period, as they might have done without interference; but in spite of these mischances the operation has a sufficient success to justify its practice. In a large matter like this, involving cure or death, health or invalidism, the appearance of a scar is but a small matter; but still it is worth noting that a well-placed linear cicatrix is after a few months almost invisible, contrasting favourably with the puckered

and depressed scars resulting from natural cure and associated in the public mind with scrofula and constitutional taint.

Urinary Fever.

Dr. N. C. Kemp, of Chicago, writing in the *Journal of Orificial Surgery* for August, after detailing the history and treatment of a case of urinary fever that recently occurred in one of his cases under treatment for chronic prostatitis, says that the former malady always arises from septic causes. Cases of collapse and death have rapidly followed instrumentation of the urethra, but such are cases of shock and not of sepsis. A severe chill, one, two, or three hours after operations upon the urethra, followed by high temperature and the characteristic headache, backache, and vomiting, indicate septic poisoning. Sepsis may develop from urinary infiltration or from passage of blood and pus over freshly made wounds after operations upon any portion of the urinary tract, but such does not constitute true urinary fever.

Differentiation in these cases often is a matter of extreme difficulty. A long and severe chill indicates a malignant form of the trouble. The prognosis in cases with single paroxysm is generally favorable, the recurring variety usually indicates secondary involment of the kidneys. In such the outlook is not so good.

Treatment largely preventive. Scrupulous asepsis of all instruments, and of the canal itself, previous to operations on the urethra. Should urinary fever develop, keep the patient warm in bed between blankets. Employ the usual remedies and measures to encourage perspiration.

S. C. Martin, M. D., Prof. Dermatology and Hygiene, Barnes Medical College, St. Louis, Mo., writes: After having tested Hagee's Cord. C. L. Oil Comp. in my practice for a number of years, the results have been so uniformly gratifying that I now rarely prescribe any other Cod Liver Oil preparation. The points in its favor are 1st, the desired ingredients, 2d, their combination in a palatable and assimilable form, which insures a sufficiently prolonged use to produce substantial results.

Peritonitis and Appendicitis.

Twenty or thirty years ago a physician or surgeon attending a patient with an acute condition of distended tympanitic and painful abdomen, a quick and small pulse, and drawn-up legs thought that he had fulfilled the whole duty of man when he had diagnosed peritonitis and excluded perforation of the stomach and obstruction. Who is content with such a diagnosis now? It has gradually become apparent to our minds that peritonitis has almost always its cause in some other lesion, and that our investigation is not complete till we have localised that cause. We know also that the origin is very often indeed situated in the appendix vermiformis, that this tube is subject to several morbid states; it may be strictured and the part distant from the bowel may distend with septic contents; it may ulcerate through; it may be the seat of tuberculous disease; foreign bodies may lie in it or concretions form; the whole thing may go gangrenous. As consequences of these we may have at one end of the scale a mere local disturbance passing away after a few days' discomfort or at the other a general rapid peritonitis followed by death. Between these extremes we find many degrees of severity of attack. Thus if a slow perforation occurs we have an abscess in the peritoneum, but shut off from the general cavity by adhesions. We probably hardly yet know the whole pathology of the appendix, but we know enough to form a good clinical idea in most cases of the essential state of matters.

A little consideration will show that many of the above do not come within the scope of my address. A general peritonitis following perforation or a local abscess round the appendix demands immediate surgical interference; the stage is past when prevention can come in. The class of cases which falls within the domain of preventive surgery is that in which the appendix has not perforated, but in which it is subject to repeated attacks of distension, in which it inflames from retained concretions. indeed, when from any cause it is the subject of one or more inflammatory attacks of a severity short of immediate danger to life. Three views of surgical duty prevail. Some surgeons hold that the appendix should

never be removed; that the probability of a putrid infection of the peritoneum during the necessary manipulations make it an operation of unjustifiable risk, and that the prospect of natural cure is a more hopeful outlook. I believe this view is held by an ever-narrowing circle.

Another opinion strongly held both here and in America by men whose surgical work entitles their views to the highest possible respect, is, that every appendix which has given rise to morbid symptoms should be cut down on and removed when in a quiescent state. The third view is that only after a repeated appendicitis and the failure of careful dieting does there exist the necessity for a preventive operation. The following arguments are adduced in favour of this view:

The great majority of attacks are not repeated; after one all clears up, and no further disturbance occurs. Most instances of perforation are first attacks; an evidence that one seizure does not increase the probability of perforation in the case of recurrence, and, lastly, that a milk and farinaceous diet and mild aperients are often successful in preventing return.

I think this last view may be looked on as that most generally accepted by English surgeons, and consequently that the time for preventive operation comes after a relapse, not after a first attack. When the operation is done during the quiescent stage, and with every possible care and precaution which human ingenuity can devise and human knowledge direct it is devoid of risk and absolutely effective, for the source of trouble is entirely taken away.

The Treatment of Pneumonia.

In broncho-pneumonia Dr. Gendre considers it important that the air of the room should be frequently renewed and kept moist by means of steam from antiseptic fluids. In severe congestion of the lungs he advises local treatment by ice bags rather than by vesication and hot applications. He has discontinued the use of anti-thermic drugs in pyrexia, having found quinine to be of no value, acetanilid dangerous, phenacetin inactive and aconite too depressant, and relies on

hydrotherapeutic measures. Amongst these he places great confidence in cold compresses employed in the following manner: Some layers of tarlatan or ordinary surgical gauze are dipped in water containing one-fourth part of alcohol, wrung out, and applied all round the thorax. Over this is placed a dry compress, and the whole is then fixed with a bandage or strapping. The water used is to be at the same temperature as that of the sick room, and the compress must therefore be changed frequently every quarter or half hour, as by that time it has got heated to the temperature of the skin. The bath is to be employed when the fever is excessive, the dyspnoea marked, and great nervous irritability present, but is to be avoided if a large part of the lung or lungs is involved, or if the cardiac action is feeble or irregular. The temperature of the bath should not be above that of the ordinary living room. As cardiac stimulants he finds caffeine and alcohol give the best results, but notes that caffeine often produces cerebral excitement and insomnia. A series of articles on the treatment of pneumonia in children, based on the reports from six different children's hospitals, has recently been published, and will repay perusal. Expectorant medicines have been discarded for the most part, and antiseptic inhalations are used in place of them. Phenacetin has been found in relieving restlessness and procuring sleep. Pyrexia is treated by hydrotherapeutic measures, the cold bath, the cold pack, and cold sponging.

Treatment of Typhoid Fever.

The *Lancet* and *Clinic*, of August 22d, has an original article by Dr. L. F. Roush, on the Treatment of Typhoid Fever, which certainly merits consideration in several respects.

The author takes the ground that most of the old methods of treatment have little value in diminishing the severity or limiting the duration of the disease. He also describes a treatment which, in his hands, he says he knows does influence the disease both as to its severity and its duration, and instances the fact of having treated sixty-five cases with the loss of only one case during the last two years,

and that one due to error in diet following or during convalescence.

The principles of treatment consists in keeping bowels free, by the administration of cathartics, especially during the first six to eight days, giving, by preference, calomel with bicarb sodæ, and sometimes salol in sufficient doses to produce some action each day, which would be characteristic of the effect of the medicine, thereby changing the diseased action which is commonly observed as ochre colored stools.

The author never gives astringents for the diarrhœa, but always cathertics combined with antiseptics, until stools are changed and diarrhœa ceases. The additional agent relied upon, for which he claims specific value, is salicylate of ammonia, or sodæ, which he gives from first to last in 5 gr. doses every 2 hours, or 10 grains every 4 hours, continuing day and night as long as fever is 102.5° , or above, in the evening, but ceasing to give the medicine at night when it falls below that degree.

The only other treatment advised is phenacetine with Dover's powder at bed time for the insomnia when it exists, and from the tenth day tonic doses of quinine and strychnia.

The author deprecates forced feeding of the patient as being irrational, unphysiological and injurious.

The Influence of Mitral Lesions on the Existence of Pulmonary Tuberculosis.

Dr. Graham read a paper on The Influence of Mitral Lesions on the Existence of Pulmonary Tuberculosis before the Canada Medical Association, Aug. 28th, 1896.

The doctor gave a resume of the literature dealing with this subject, all of which went to show that the two diseases rarely occur in combination during the period of life between the ages of 20, 30 and 50, when the cardiac compensation is complete, and that the evolution of tuberculosis is much delayed. On the other hand when the disease attacks an individual after middle life, or when, from bad habits or bad hygienic surround. ings there is a low state of vitality, the process is often rapid. A case of slow evolution had come under his observation

two years ago. The patient was a young lady, 24 years of age, who, suffering from phthisis, consulted him as to the advisability of going to Colorado. Distinct signs of mitral stenosis were found as well as those of pulmonary tuberculosis. The sputum contained bacilli.

The patient was advised to go to Georgia for the winter. She has been examined several times since and the last time, about a month ago, there were signs of decided improvement. The doctor's conclusions were, judging from statistics and the observations of eminent physicians.

1. That primary mitral disease and pulmonary tuberculosis rarely exist in the same individual. It would appear that in uncomplicated cases, viz., those in which the other valves are healthy, mitral stenosis occurs more frequently in combination with tuberculosis that does mitral insufficiency; but when other values are also affected in sufficiency of mitral is the mere frequent condition.

2. That pulmonary tuberculosis is a very frequent sequel to pulmonary stenosis.

3. The presence of mitral disease acts as a preventative to pulmonary tuberculosis, especially when the vital processes are at or near their normal standard; and this prophylactic agency is shown in those who have a strong hereditary tendency to the disease and who are constantly exposed to it.

4. In the small number of cases in which tuberculosis follows a mitral lesion during middle life, the evolution of the process is very much delayed. When, on the other hand, from age or bad habits the vital powers are on the decline, the process is often as rapid as in ordinary cases. In accounting for the immunity from tuberculosis which patients suffering from mitral stenosis have, as the essayist said that the apices of the lung (being most frequently attacked by reason of the lack of motility of the chest walls and the branching of the bronchi) were subject to greater expansion by reason of the passive congestion at the bases of the lungs. Thus there was an increased amount of blood in the lungs, hence greater germicidal action, beside there was an increase of involuntary muscular fibres of the bronchials and anveoli.

From this the author deduced that an

active hyperemia, which was possible, would have a somewhat similar effect in immunising persons from tuberculosis. This could be accomplished by suitable chest exercises, in which the apices would be expanded, allowing of a free exchange of air; a moderate hyperæmia would be produced and the muscular tissue would be probably increased in amount. The essayist thought if these exercises were properly taught in public schools, they would be continued throughout life and would be the means of preventing tuberculosis in many who are predisposed to it.

Pertussis.

In the August number of the New York Polyclinic, Dr. Charles Gilmore Kerby, of New York, writes at length upon Pertussis. He has personally cared for over one thousand cases. The disease is looked upon by the author as one of the most infectious of the infective diseases and classes it with diphtheria and scarlet fever as a life destroyer. It does not kill directly through the means of a specific poison, but on account of its long course and the resulting complications, it is an important factor in the mortality of the young.

The most susceptible age is from the fourth year. The period of infection is from the beginning of the catarrhal stage and lasts for two weeks after the cessation of the paroxysms. The period of incubation is from five to fourteen days. The previous state of health exerts no influence as far as the susceptibility is concerned. The strong and the weak are alike predisposed. Intercurrent disease exerts no influence upon the course of Pertussis. The largest number of cases occur during the summer, and this is accounted for by the fact that children come more in contact one with the other during this period of the year.

The actual pathological changes of Pertussis are to be found in the upper respiratory tract. The parts chiefly involved are the arytenoids, the cartilages of Wrisberg and Sartorine, and the inter-arytenoid region. This region is unquestionably the site of operation of the micro-organism that causes the disease. The end organs of the superior laryngeal nerve become irritated and cause the

reflex spasm. The Pertussis micro-organism has not been isolated. All the diseases of infancy may complicate Pertussis, but broncho pneumonia and intestinal disease are the two most frequently met with, and it is through the agency of these that whooping cough is so destructive to life. Malnutrition, convulsions, and tuberculosis are also seen from time to time. Hemorrhages from the mucous membrane, paralysis, blindness, and emphysema have been observed by various authors.

The diagnosis of Pertussis is not difficult in the early stages, before the whoop or the convulsive nature of the paroxysm develops. The early symptoms do not differ to any extent from the cough of an ordinary trachitis or bronchitis.

In some children the disease is so mild that diagnosis is rendered difficult. The only positive diagnostic point is the whoop. The initial cough of Pertussis is always more troublesome at night.

The author strongly recommends that in all cases of severe cough of uncertain origin, the vaso-pharyngeal vault must always be examined for adenoid growths. This can only be done in children by using the index finger. The prognosis is grave in delicate and rachitic children.

The author has made painstaking research in the use of drugs in this affection. Experiments were systematically carried out in their use, one drug being used in a series of cases. The patients were carefully watched, both before and after treatment had been instituted.

Thus he was able to judge impartially of the respective values. All of the well known whooping cough remedies were brought into use; of these antipyrine and the bromides were proven the most valuable. Quinine was found very servicable in children over two years of age.

The remedy selected should not be given until the paroxysmal stage is well on. If begun as early as is customary among physicians it will have lost its effect when it is needed most.

The desirability of frequently changing the sick room in infectious diseases is touched upon.

San Francisco has a physician ninety-four years of age, who has been in active practice sixty-four years.

Consultation Between Medical Men.

Cazilly (Le Concours Medical) suggest the following rules which are as applicable to members of the medical profession of this country as to France:

"When a consultation is suggested, either by the medical attendant or by the family, the attending practitioner should propose the name of the consultant, but if the family desire another, the attending practitioner should agree, whatever may be the apparent inferiority of the consultant on the plea of age, degree, or experience, so long as his personal and professional character are honorable.

One may accept a consultation with a homœopath on condition that the discussion will be exclusively confined to the question of diagnosis, and that the therapeutical conclusion of the consultation shall be based upon the rules and dosages of classical therapeutics. When a medical man is called in consultation, he should arrange with the medical attendant about the day and time. As a rule the convenience of the consultant should be studied on the occasion. On no account should one agree to a consultation more or less concealed with a person who is not duly qualified to practise medicine. The consultant examines the patient in the presence of the attending practitioner, and the latter supplies him, before or after the examination, according to the inclination of the consultant, with the notes of the case as regards the course and the treatment already carried out.

During his clinical examination, and after such examination, the consultant should say nothing, openly or indirectly, before the patient or his friends which would reveal his diagnosis, especially if there is a difference of opinion with the attending practitioner. He should not give any indications of the treatment which he wishes to be carried out. This should be done by his colleague.

The discussion between the consultant and the practitioner should always be secret.

Should there be a difference of opinion between the two colleagues, the consultant should write his prescription according to the dictates of his conscience, without making concessions on the ground of good fellowship, and unbiased from

any other motive; on the other hand, he should exhibit the mild courage of retiring without suggesting any difference in the treatment, should he absolutely share the opinion of his colleague. In any case, in the presence of the family he should carefully abstain from proclaiming any difference of opinion which may exist, or the change made in the treatment hitherto carried out. He should present the new prescriptions as the corollary or sequence of preceding ones, or as framed to cope with fresh indications in the case which were non-existent in the early stages of the disease. If, however, there is a serious difference of opinion, and the attending practitioner expresses a wish in that direction, the consultant should, with all deference and courtesy, inform the friends of the fact (beyond the hearing of the patient), and suggest a fresh consultant. If the second consultant endorses the opinion of the first, the attending practitioner should either retire from the case or accept the views of the consultants. If, on the contrary, the second consultant shares the opinion of the attending practitioner, it is obvious that the first consultant has only to retire. In the case of a surgical operation, the consultant as a rule operates if he has been so requested by the attending practitioner, but the latter has the right of operating. The two medical men help each other in any case.

The consultant should not return to the house in the absence of the attending practitioner, even to inquire after the patient, unless formally invited or authorized by the attending practitioner.

A consultant may not assume the duties of the attending practitioner in a house to which he has been called as consultant.

If the attending practitioner is not present at an appointed consultation, either because he has not been advised by the family, or on account of enforced detention by other work, the consultant should retire without examining the patient if the consultation is in the town in which he lives. But if the consultant is called away from the town in which he lives, he may examine the patient in the absence of his colleague; he must not, however, express his opinion of the case nor prescribe, but write to the attending practitioner to inform him of his diagnosis and of the treatment he suggests. The fee for a consultation or an operation is de-

terminated by the consultant from information supplied him by the attending practitioner as to the means and social position of the patient. The consultant should at the same time determine the attending practitioner's fee, and tell the friends."

The Theory of Eliminative Treatment of Typhoid Fever.

A paper on this subject was read before the meeting of the Canadian Medical Association at Montreal, August 27th, 1896, by W. B. Thistle, M. D., of Toronto. Although the practice of giving purgatives freely and frequently throughout the entire duration of typhoid fever had extended widely since the publication of the "Eliminative and Antiseptic Treatment of Typhoid" by the author in the Canadian Practitioner, 1893, yet there was still a great deal of misconception regarding the purpose of this treatment.

The main reason for this misapprehension is that elimination is understood to apply only so far as bacteria in the intestine are concerned. The far reaching effects of purgatives on the body generally being ignored.

The object of the paper was to make more manifest the ideas which form the basis for the theory of treatment, and also to refute the assertion made in a well known work on practice of medicine that the eliminative antiseptic plan of treatment was based upon the *erroneous* idea that the specific bacteria are present in the fæces during the early days of the disease.

In a former paper the author had questioned the correctness of the very generally accepted statement that the specific bacteria are absent from the fæces for the first nine days, and had advanced arguments to show that the specific germs must be present during the early days as well as later. Recently the new method of differentiation between bacillus coli and the specific germ of Eberth, devised by Elsner, has shown that the specific germs are present in the fæces during the early days. Consequently the assertion that the author of the paper was in error with reference to this point must be abandoned.

Before going on to the consideration of the details of treatment attention is direct-

ed to some fundamental facts which must be borne in mind in order to appreciate the logic of eliminative treatment.

I. That there is a constant augmentation of the toxæmia. Toxines elaborated by colonies of bacilli situated in the different parts of the body are constantly being carried to the blood.

II. Throughout the course of the fever bacilli and toxines are carried from the intestine to still further increase the number in Peyers patches, spleen, &c., and to increase the toxæmia.

III. Roughly speaking the fatality in typhoid is due either to excessive accumulation and long continuance of toxines in the blood, or to excessive local action of the toxines on particular tissues.

IV. The defences of the body are—the aggressive action and resisting power of the tissue cells.

1. The bacilli in the body in the cases that terminate in recovery are destroyed by the tissue cells, excepting, of course, those that escape by the urine. The defensive and aggressive power of the cells of the body is in inverse ratio to the degree of the toxæmia.

2. The several channels through which toxines leave the body. These are in order of their importance—the bile. The toxicity of bile is nine times greater than that of the urine.

The urine stands next to bile as a carrier of toxines from the body. The serous exudate into the intestine also carries toxines in solution in the blood.

1. To interrupt the process of infection, that is by sweeping out the intestine to clear away bacilli, specific and others, and also toxines, which would otherwise go to increase the number of bacilli in the body and to increase the existing toxæmia.

2. To counteract at frequent periods, the continuous augmentation of toxines in the body by carrying away the toxic bile poured out into the intestine, which, if it remains there, will be again absorbed.

3. To carry away some of the toxines in solution in the blood by inducing a free secretion into the intestine.

4. The constant clearing of the intestine lessens the extent of the local lesion because it cuts off the course from which bacilli and toxines are carried to Peyers patches to add to the bacilli and toxines already there.

Thus, while on the one hand there is a continued production of toxins in the body, on the other by the frequently repeated administration of purgatives we endeavored to eliminate the toxins in sufficient quantity to keep the total volume of poison below a harmful point until the termination of the disease.

Diabetes Mellitus and Epilepsy.

Ebstein (London Lancet) discusses the relationship between diabetes mellitus and epilepsy. Cases in which the diabetes is the cause of the epileptic attacks may be divided into two categories, according as the attacks are due to cerebral lesions or to disturbance in the intraorganic exchange consecutive to the glycosuria. Cases belonging to the former group are rare. In the cases of epilepsy due to diabetes the convulsive spasms are determined by toxic products of intraorganic exchange, and take more or less the form of coma. The acetonaemic diabetic epilepsy described by G. W. Jacoby rapidly leads to fatal coma, but when it develops in a chronic and intermittent manner is said to determine epileptic seizures. The cases in which diabetes seems to depend upon epilepsy are divisible into two clinical varieties: those in which the elimination of sugar merely follows the convulsive attack—these have rarely been found; and those in which the glycosuria is a more or less constant accessory symptom of the epilepsy. The cases in which diabetes and epilepsy appear simultaneously are of two kinds: (1) Epilepsy often alternates with diabetes and mental disorders in neuropathic families, and it would, therefore, not be a matter of surprise to find the two conditions present in one individual of such a family. (2) There may be a predisposing cause of both in the same subject. Ebstein describes a case belonging to this latter class. The patient had an apoplectic stroke resulting from ischaemia of the left hemisphere due to a cardiac lesion. There was aphasia and pollakuria, but no polydipsia, polyphagia, or polyuria. Some months later epileptic seizures, with complete loss of consciousness and convulsions in the previously paralysed half of the body, supervened. The two conditions seemed to occur quite inde-

pendently of one another, and both resisted treatment, though there was marked improvement of the patient's general health.

The Therapeutic Action of Salicylic Acid.

Dr. Pouchet who regards salicylic acid in general terms as an antiseptic, that is to say, as a body which diminishes the physico-chemical function of cells, strongly insists that it is primarily and chiefly a poison of the cells of the nervous system, central and peripheral, a selectiveness in its action which he explains as due to the excessive vascularity, active nutrition and vitality of the protoplasm, of which they consist. Under such conditions the carbonic acid tension is high, and for the liberation of salicylic acid from salicylate of soda, it can be shown chemically that a high tension of carbonic acid is necessary. Although Vulpien, and others with him, believe that salicylate of soda has a specific action on cell activity, most authorities, including Pouchet, insist that it is only when the salicylic acid is freed from its combination that it has the therapeutic properties on which its value depends. Salicylic acid is not usually regarded as having a special influence on nerve cells or nerve structures, but Pouchet maintains that voluntary, reflex, and so-called automatic action, as well as sensation, are all affected by the drug, although the degree of sensitiveness to its influence is different in the different cases. Death in animals, and in one case in man, showed that the fatal effect was due to nerve paralysis. With regard to its specific action in cases of acute rheumatism and gout, it has been thought by many that an influence so marked must be due to an inhibition of septic processes due to its antiseptic properties. Pouchet, however, believes that its effect is due to other causes. As Ewald has shown, in rheumatism the carbonic acid tension in the inflamed areas may rise to three times its normal degree, and hence in these parts the conditions are present for the liberation of salicylic acid from its combinations. The acid set free restrains the protoplasmic action of the cells of the synovial and perisynovial tissues, limits their powers of secretion, lowers the fluid

tension, allows the absorption, and thus relieves the pain. Laboratory experiments confirm this view as to the liberation of salicylic acid—for in animals which have been killed subsequent to the administration of salicylate of soda there has been found in the tissues of the articulations considerable quantities of free acid. In chronic inflammation, rheumatoid arthritis for instance, the necessary conditions, namely, high tension of carbonic acid, are not present in the diseased areas, and hence the inefficacy of the salicylic treatment in such conditions. The ordinary symptoms caused by salicylates are undoubtedly due to their selectiveness for nerve cells; the increased glandular activity, salivary, liver, etc., is due to central nervous causes, and the same is true of the heart and vascular system, as can be shown by experimentation on animals. The chief lessons that are to be learnt from Pouchet's observations are; (1) that salicylic acid must be regarded as specially affecting the central nervous system; (2) that salicylate of soda is only decomposed where protoplasmic activity is excessive, and where the carbonic acid tension is high; (3) that it is a drug for symptoms and not for diatheses, and should be employed only as a temporary expedient—as opposed to quinine in malaria, and mercury in syphilis; it is no prophylactic against subsequent attacks; (4) that owing to its irritative qualities, salicylic acid should be given well diluted.

Death after Exploratory Puncture of Hydatid Cysts.

Chanfard in the British Medical Journal records a case in which an exploratory puncture was made to confirm the diagnosis of hydatid cyst of the liver. Every antiseptic precaution was observed, and the fluid withdrawn was characteristic and clear. No pain was complained of. A few moments later the patient felt suddenly ill, intense irritation of the skin was experienced; this was followed by two severe epileptoid seizures. The mouth became filled with foam, and death ensued from cardiac collapse about twenty-five minutes after the operation. *Post-mortem* examination proved, apart from the liver, entirely negative. The

heart was contracted in systole and empty. There was no effusion of liquid into the peritoneum, and no sign of inflammation of serous membranes. The liver was very large, and after removal of the cystic cavities weighed 2,450 g. Compensatory hyperplasia has frequently been noticed in these cases. During life the liver had performed its functions well; and there was no glycosuria or urobilinuria. *Post mortem* no cirrhotic or sclerotic lesions were present; the hepatic cells were well preserved. The trabecular arrangement was disturbed, the glandular element having obliterated the capillary network, and an almost exclusively cellular parenchyma remaining. This is probably a condition identical with that of the foci of nodular hyperplasia observed in the subjects of tuberculous, syphilitic, or malarial disease. Death after puncture, which is rare, usually results in cases of intraperitoneal rupture. Two theories only can account for this case: 1. That the symptoms were reflex, and of traumatic origin. 2. That they were due to intoxication by a special hydatid poison. The latter is the generally accepted, and, in this case, the only possible view. The three groups of symptoms—cutaneous, cerebro-spinal, and myocardiac—which are frequently met with after puncture of hydatid cysts can hardly be due to an ordinary traumatic reflex; there is obviously some reflex connected with the puncture of the cyst itself. Death through hepatocardiac reflex was negatived in this case by the fact that the heart was arrested in systole. In the most attenuated form of hydatid intoxication—urticaria—patients are found to be very differently affected, and individual idiosyncrasy, with regard to the poison resulting from effusion into the peritoneum of a few drops of the fluid is the only way of accounting for the terrible effects produced in this case.

Syphilis.

Dr. J. A. Coutts in considering the manifestations of the disease lays stress on wasting from the time of birth as frequently the earliest sign of syphilis. This wasting is of grave importance, because it is dependent on atrophy of the mucous and muscular coats of the stomach and intestine, and unless it is

treated early the hope of cure is small. In the case of children who are emaciated at birth the prognosis is almost always hopeless, but if a well-nourished infant commences to waste soon after birth, then, in the absence of any recognisable cause, and even in the absence of any other sign of syphilis, Dr. Coult's thinks that antisyphilitic treatment should be employed. Swelling of the nasal mucous membrane with "snuffles" is usually the first objective sign in infantile syphilis, but as a similar condition is frequently due to some transient cause, too much weight must not be placed on this sign. The skin eruptions are of great variety and importance. One of the rarer forms is that known as the "syphilitic carbuncle," which is often the sole manifestation of the later stages of inherited syphilis. It consists of an elevation of the epidermis of the size of half a hazel nut, purple in colour, and situated usually on the outer and upper aspect of the thigh. He has not found enlargement of the spleen present to an excessive degree in syphilis, and believes it is never so marked as to lead to changes in the blood. When these changes are present in a syphilitic child, he believes that rickets is also usually present, and it is the prime factor. As regards the skull, the "natiiform" condition, with four bosses closely surrounding the anterior fontanelle, is diagnostic of syphilis, while an exaggeration of the frontal and parietal eminences is usually rachitic. After the age of six months a combination of these two diseases is frequently present, and the form of the skull is modified by both of them in a manner which makes the differentiation of the etiological factors very difficult.

Syphilitic epiphysitis of the long bones usually occurs in infants of from three to six months, and affects the upper more than the lower extremity. He does not regard this epiphysitis as the invariable cause of "syphilitic pseudo-paralysis," and suggests that there may be a real nervous affection of peripheral origin which induces the paralysis, and also the wasting of the muscles, which is often a prominent feature.

Does Champagne Cause Gout.

Dr. Harley says this question can be equally truthfully answered in the nega-

tive as in the affirmative, for the chemical composition of different champagnes is so different that while the majority of persons may indulge in one kind with perfect impunity a paroxysm of gout speedily follows a glass or two of another. People have such different idiosyncrasies that in some gout is brought on by all kinds of champagne, in the same way as it is in others brought on by all kinds of whiskey. This is not to be wondered at, seeing that from champagne being a manufactured article its effects on the human constitution vary not only according to the quality of the grape juice from which it is made, and method adopted in its preparation, but likewise according to the ability and ingenuousness of its fabricator. Consequently in prescribing champagne to an invalid a medical man should never lose sight of the fact that he ought to be as careful in selecting the wine ordered as he is in selecting the drugs prescribed.

The generic name of champagne is in no case of itself a guarantee as to what the therapeutical effects of it will be on a sick person. For careful clinical observation has shown that while one class or kind of champagne may prove not only an agreeable exhilarating beverage to the healthy, but a palatable restorative remedy to the sick, another, though equally exhilarating to the healthy on account of the alcohol it contains, may be a disease-increasing instead of a disease-diminishing agent to the invalid. For champagne contains a host of active ingredients besides spirit, sugar, and fizz. I emphasise this remark from its being well known that many practitioners simply know that there are two main varieties, called respectively sweet and dry. And as it is to be feared that even the nations they have regarding their chemical compositions and consequently their therapeutical actions are of a somewhat hazy character, it may be well briefly to explain what are their more salient differences.

In the first place, the word "dry" when applied to champagne is a misnomer, as it simply implies that the wine contains but little saccharine matter. Port wine becomes dry in this sense by keeping it twenty, thirty, or forty years. For in that time the sugar it originally contained has become transformed into alcohol. Hence what it has lost in sweetness it

has gained in alcoholic strength, and not only so, but likewise in flavour. For by age are developed the fine aromatic ethers which give to old wines their exquisite vinous bouquets. It takes from nine to twenty years to make champagne dry. But as it is not profitable to keep it in stock for anything approaching to that time the manufacturer adopts the plan the sherry merchant did, though in a different way, of giving his wine the semblance of being dry. Sherry was easily made to taste dry by treating it with plaster of Paris. The public, however, after a time discovered the fraud, and as a natural consequence sherry drinking went out of fashion. The champagne manufacturer is now equally engaged in killing the goose that lays the golden egg by putting on the market a rough, immature wine, which to the uninitiated tastes as if it were dry, on account of its acidity. Strange though it may seem, not one in a thousand, unless he be in the champagne trade, can distinguish a sour sparkling wine from one that has become dry by age.

The idea, too, that champagne, even of the *brut* variety, is made without sugar is equally erroneous, as well as that the sugar in champagne is bad for gouty people. On the contrary, sugar is about the least deleterious constituent of wine.

Since, however, facts prove that sugar cannot give gout, and that sugar even in combination with alcohol does not cause gout is shown not only by the fact that gout was a disease almost unknown in Scotland at the time when toddy drinking was so common, and everyone knows that toddy is a strong concoction of whisky, sugar, and hot water, but that sweet champagne drinkers are far less affected with disease than sour champagne drinkers, it is not difficult to understand why many hereditarily gouty people can indulge in the rich so-called sweet champagnes with impunity, whereas a single glass of the English extra-dry and *brut* varieties, by virtue of the unnecessarily excessive quantity of vinegar they contain, immediately provokes a paroxysm of gout. Moreover, the fact that sugar has been shown by carefully conducted scientific experiments to be not only a potent muscle food but a powerful exhaustion restorative is a strong additional reason why, when giving champagne to a

weak, exhausted invalid, preference should invariably be given to the rich and properly prepared varieties instead of to spurious dry kinds, which are most probably as little likely to benefit a patient as a similar strengthened alcohol, vinegar and water concoction would be.

So well is the fact of the injurious effects of crude champagne appreciated by manufacturers that some of the highest standing refused to send any of it out under the term of extra dry until they found that other firms were winning from them their customers. Some of higher moral tone still decline to do so, and I feel certain they will in the end be gainers by their resolve, for already many persons are beginning to discern for themselves that the so-called extra-dry and *brut* champagnes are simply sour wines with misleading titles.

Diphtheria in Soil, in Cows, and in Human Beings.

A discussion took place at the Carlisle meeting of the British Medical Association on the subject of diphtheria, but it cannot be said that much was advanced which was either definite or novel. One fact, however, was put forward by Dr. Gordan Sharp, as the result of his investigations into the relation between the soil and organism of diphtheria which, if, in the hands of other investigators, it should receive confirmation, is likely to be of considerable importance in elucidating the etiology of the disease. From two specimens of soil, each taken from a spot at some distance away from human habitations, he cultivated bacilli which were indistinguishable from those of diphtheria. In considering the bearing of such an observation one should remember that it is by no means probable that the relation between the saprophytic and the pathogenic manifestations of the bacillus is in any way a near or direct one. It is conceivable that the damp walls or floor of a cottage might become the nidus from which case after case might be infected; but in view of our other knowledge, if on further investigation the bacillus should at all commonly be found in country soil, it would seem most reasonable to regard soil diphtheria and cow diphtheria as having direct relationship with each other, much as the anthrax of

the soil and that of the animals which feed upon its herbage are related; and to look upon diphtheria in man as a mere accidental development of the disease, owing to his bad habit of drinking the uncooked milk of diseased cows, much as malignant pustule and woolsorter's disease in man are accidental developments of anthrax owing to his handling diseased hides or breathing the dust from the fleeces of diseased sheep. Of course such a theory would admit fully the spread of diphtheria by infection from child to child, just as it would the possibility of a careless surgeon infecting himself with charbon, but it would also tend in some degree to explain that very interesting phenomenon, the seasonal prevalence of diphtheria. We would by no means encourage the building of pretty theories, but facts regarding diphtheria are accumulating so rapidly that we may expect before long to possess a much more complete conception of its etiology than we have at present, and there is much to suggest that when that more perfect knowledge comes its teaching will be that if we would avoid sharing with animals their diseases, including diphtheria and scarlet fever, we must cook all animal products which we use as food.

Strophanthus.

Dr. Balford expresses the opinion in the Hospital that the remarkable contrast between the action of strophanthus and digitalis have not been sufficiently emphasised. It is not enough that in a series of cases the employment of the drug was followed by the disappearance of dropsy, and that the pulse tracings showed an apparent improvement in the pulse-rate and in the blood-pressure, for this has happened without the use of either digitalis or strophanthus. The heart works so well within its power that even when there is some valvular incompetence there is not a falter in the action of the heart, nor any indication in the pulse tracing of any interruption of the equability of the blood-pressure—at any rate, not for many a long day. But whenever, from overwork, privation, or debilitating illness, the general metabolism is interfered with, the heart suffers, its function is impaired. Like every weak muscle, the enfeebled myocardium

reacts to stimuli irritably and irregularly, and does its peculiar work imperfectly. If we put such a patient to bed, we can readily understand that this rest is sufficient to give such a fillip to the general metabolism as enables the heart to recover its tone and to discharge its function more perfectly. Now, rest is of first importance, though recovery from failing heart may be aided by the judicious use of purgatives, of diuretics, or of such drugs as either diminish the work of the heart or restore the tone of the myocardium. It is evident that those drugs alone are of paramount value which increase the elasticity of the myocardium, and that this action can only be permanent when accompanied by a corresponding improvement in the general metabolism. The action of digitalis purpurea is in moderate doses to improve the elasticity of all muscular fibre, and as all the blood passes many times through the heart for once that it passes through any other muscle, the myocardium is powerfully affected, while the other muscles remain practically uninfluenced. In like manner the muscles of the arterioles are also early and powerfully affected, though not to the same extent as the heart, as only the blood going to the district supplied by these vessels passes through them. The increased elasticity imparted to the myocardium by digitalis enables it to expand and to contract more perfectly, and as, owing to the increased elasticity of the muscles of the arterioles, the arteries empty themselves more slowly the blood accumulates within them, the blood pressure gradually rises, and, in accordance with Marey's law, the heart's action is slowed. No doubt this is partly due to the action of digitalis on the vagus nerve, but the action on the muscles is sufficient to account for all the phenomena observed, and it is with it we are chiefly concerned. The result of this rise in the blood pressure is that the secretions are improved and all the tissues of the body, amongst them the myocardium, are fed with richer blood at a higher pressure, so that metabolism is more perfect and every function is more efficiently performed. As the blood accumulates within the arteries the veins are correspondingly emptied, the serous soakage of the tissues is reabsorbed, and the excess of water that thus gets into the

blood is removed by the kidneys, so that for a time the urine is increased. The improved metabolism of the myocardium enables it to discharge its functions more perfectly and to resist successfully all those deteriorating influences to which a weak heart succumbs.

All the benefits we obtained from digitalis are inseparably connected with its tonic action, especially its action on the myocardium. Digitalis is no opium to the heart; it does not relieve by narcotising, but it soothes cardiac irritability by strengthening the cardiac muscle. These benefits are readily obtained by very moderate doses of the drug, though great benefit may at times be obtained more rapidly by the judicious administration of larger doses; yet the long continuance of even small doses is often followed by the very best results, while the abuse of the drug, so frequently accompanied by distressing, if not alarming, symptoms, proceed upon an entire misconception of the true action of digitals. The action of *strophanthus hispidus* is so entirely different from that of digitalis that it is difficult to see how any comparison can be made between the two. Its action is twofold: in small doses it arrests the heart in diastole, and in large doses it arrests it in systole, the former action being that which alone is useful therapeutically; in it the diastole is prolonged, and the contractile energy of the heart is at the same time increased. The type is thus of bradycardia, a slow-beating heart sending forward a large blood-wave with each contraction—not a type of heart usually associated with much vigour of the circulation. *Strophanthus* acts three thousand times more powerfully on the heart than digitalis; so that if some still dread digitalis as a dangerous cardiac poison, what must their feelings be towards *strophanthus*? Indeed, whether we regard the uncertainty of its direction or its excessive energy as a poison, it seems difficult to formulate a more forcible indictment against any drug than that presented by a bare statement of the facts recorded against *strophanthus* by its most able investigator and its most ardent advocate. Further, while *strophanthus* acts 3,000 times more powerfully on the heart than digitalis, it acts 100 times less powerfully than digitalis upon the muscles of the arterioles. From the entire absence

of any appreciable action by *strophanthus* on the arterioles, the blood flows freely from the arteries into the veins, and any little rise of blood pressure there may be is entirely due to the systole of the heart. The typical (therapeutically induced) *strophanthus* heart has a prolonged diastole, so that the arteries have a longer time than usual to empty themselves, for the ventricle has been filling during this period, its systole sends an unusually large blood wave into unusually empty arteries—precisely what happens in a case of bradycardia. So evanescent a rise in blood-pressure can have no appreciable effect on either general metabolism or on that of the myocardium. Herein the action of *strophanthus* differs most essentially from that of digitalis, and from the absence of any improvement in the metabolism of the myocardium the stimulating action of *strophanthus* must tend still further to exhaust it instead of strengthening it.

The tendency to arrest in diastole is not due to any action on the cardio-inhibitory apparatus, because paralysis of the intracardiac terminations of the vagus by atropine does not prevent its occurrence, Balfour explains the diastolic type of action as due to exhaustion of the heart. When death occurs in fatal systole after the administration of *strophanthus*, the cardiac muscle is acid, it is fatally poisoned, it has been forced into fatal systole. The smaller doses resulting in death with diastole act by gradually overstimulating and exhausting the heart muscle. It may be fatal without warning. The action of *strophanthus* is like that of all its congeners of the apocynaceæ, and is that of a cardiac poison, and not a cardiac. While in large doses it forces the heart into a fatal systole, in small doses it stimulates the heart to increased action, and by calling on its reserve of energy without improving its metabolism, it causes death in diastole from exhaustion, and the more feeble the heart the greater the risk attending this peculiar action.

Recovery from Addison's Disease.

Cervellini records in the London Lancet an interesting case of Addison's disease presenting the following features. The patient was a peasant, aged 22, who

had always been in good health up to a year before coming under observation, at which time he began to complain of general weakness and pain in the epigastrium, both of which increased to such a point that he was obliged to give up work. At the same time he noticed a progressive brown coloration of the skin. On examination the mucosæ were pale without any pigmentation, but otherwise all the classical signs and symptoms of Addison's disease were present. Nothing abnormal was found on examination of the chest. The heart showed some dilatation, with slapping of the first sound and irregularity of rhythm. The appetite was extremely bad, and there was diarrhœa. The left testicle was found to be enlarged with some superficial swelling; the cord was also thickened. The patient stated that this swelling had always been there, but laterly had increased considerably. The author advised removal of the testicle on the ground of its being tuberculous, and the operation was performed by Manega, who found the organ full of tuberculous nodules, with some cystic degeneration. There was also a tuberculous deposit extending along the cord. The omentum contained tubercle. The patient was convalescent from the operation in ten days, and it was then found that his symptoms had considerably decreased. The pain in the abdomen was so much reduced that palpation could be borne. The pigmentation of the skin had likewise diminished. Under a liberal diet and iodide of potassium the patient continued to regain health, and in a short time left hospital to return to his work in two months. His colour was then natural, his nutrition good, and the debility had completely disappeared. The author considers that the primary tuberculous focus in this case was the left testis, and he believes that its removal, together with the opening up of the peritoneal cavity, caused the tubercle to subside. He discusses the feasibility of a similar treatment in other cases where there is reason to suppose there is a tuberculous deposit in the peritoneum as well as tubercle of the suprarenals.

Typhoid Bacilli in the Gall Bladder.

Chiari has investigated systematically a series of 22 cases of typhoid fever. Of

these cases, 2 were in the infiltration stage, 7 in that of necrosis, 6 in that of ulceration, 4 in the healing stage, and 3 were cases of relapse. With the exception of 3 cases, 1 of which was in the infiltrating and 2 in the necrotic stage, Chiari obtained typhoid bacilli invariably out of the gall bladder, and in 15 cases they were obtained in pure culture. They were generally present in considerable numbers. In 13 of the 19 cases in which a positive result has obtained there was inflammation of the gall bladder with small-celled infiltration, œdema, and hyperæmia. In all 22 cases the diagnosis of typhoid fever was confirmed by cultivations from the spleen, mesenteric glands or liver, or from the larger bile ducts. Attempts to cultivate from the heart's blood, the contents of the thoracic duct, and the liquor cerebrospinalis, were always fruitless. Chiari discusses the mode by which the typhoid bacilli reach the gall bladder. There are three possibilities: either they enter by the bile ducts, or by the blood, or directly through the wall of the gall bladder. The last mentioned manner must be very exceptional, while it is practically impossible to distinguish, experimentally, between the other two, so that the author leaves the question open. There is no doubt that the bacilli multiply in the gall bladder, and Chiari considers it possible that they may be responsible for post-typhoidal cholecystitis, for gall stones, and also for relapses of the disease.

The Surgical Treatment of Diseases of Appendix Verniformis.

Dr. MacDongald in his paper that he read before the British Medical Association July 30th in classifying the varieties of appendicitis, considered that they might be grouped into four classes: (1) mild cases; (2) cases going on to the formation of an abscess; (3) cases resulting in perforation; and (4) relapsing cases. In the mild cases, the first group, the pain was often slight, though it might be severe, but it tended to diminish; there was tenderness in the right iliac fossa, and the abdominal muscles over that region were rigid; the temperature might reach 102° or 103° F., but soon began to fall. Vomiting was not distressing; the facial aspect was natural, and the swell-

ing which could at first be felt generally disappeared quickly. He considered that examination per rectum was of great service, especially in children. These cases should be watched with great care. Absolute rest in bed, and fluid diet, leeches or an icebag locally, and very small doses of opium comprised the treatment required. Aperients undoubtedly added to the risk, as by their use adhesions which had formed were liable to be broken down. If necessary an enema might be given. Drugs, such as salol, intended to promote intestinal asepsis, were useful. As a rule the cases does well, the temperature falls, and the tenderness disappears. In the cases which go on to the development of an abscess the onset is generally of great severity. The pain is more acute, the tenderness more marked, the temperature higher, the pulse more rapid, and an obvious tumour is to be felt; this readily increases in size, and the local signs augment in severity. The temperature may for a time decline but soon increases. The tenderness may spread all over the abdomen and thus may simulate general peritonitis. Even if no obvious tumour be present suppuration may have occurred. In cases of acute perforating appendicitis the severity depends chiefly on the position of the appendix. If it projects freely into the peritoneal cavity, when it is perforated it will set up general peritonitis, but if it be behind the cæcum the peritoneal cavity may escape. It is rare to get a history of any previous attack. The symptoms are very severe; the vomiting is persistent; the pulse is extremely feeble. The abdomen is rigid, or, it may be, much distended. The perforation may occur in a case which had seemed to be simple. Of the fourth class of cases, two varieties may be distinguished, the relapsing and the recurrent. In the relapsing form the patient has not recovered from one attack when another attack seizes him. In the recurrent form there are long intervals of health. Even in the worst cases of recurrent appendicitis much may be done, to prevent subsequent attacks, by rest in bed, the use of counterirritation, and the administration of salol. Undoubtedly many cases of appendicitis are missed, and careful observation will recognise many cases which otherwise might be over-

looked. Probably many cases are diagnosed as typhoid. The symptoms may point to gastric ulcer. Had related the case of a young woman who for two weeks had complained of epigastric pain. This grew less, but four days before admission the pain had spread all over the abdomen, which was much distended. It was diagnosed as a perforated gastric ulcer. The abdomen was opened above the umbilicus, and the stomach was found to be healthy. Some resistance was felt in the right iliac fossa, but no definite swelling. The abdomen was closed. The patient died. At the necropsy there was found a large circumscribed abscess around the vermiform appendix. It is well, when in doubt, to think of the appendix. Two useful adjuncts in the diagnosis are anaesthesia and bimanual examination with a finger of one hand in the rectum and the other hand on the surface of the abdomen. With regard to treatment there can be no doubt that in many cases no surgical interference is needed. In the perforated cases the only chance the patient has is from operation; and so a quick, thready pulse, marked abdominal distension, acute pain, and extreme tenderness are signs in favour of immediate interference. In children the rule should be to operate early. In the first forty-eight hours of a case of appendicitis an operation is simple, but it becomes more difficult later. Each case should be considered on its merits, and the question of the advisability of operating must not be decided merely by the duration of the case. In support of this he related the case of a little boy who complained of slight pain over the abdomen; there was no vomiting, the temperature was 99° , and the pulse quiet. Next day the symptoms were the same, but about 48 hours after the onset signs of general peritonitis appeared. The abdomen was opened and the appendix was found to be gangrenous already. After operation, if no general peritonitis be present, the wound may be closed without drainage; but if free perforation has occurred the abdomen should be opened in the middle line. The peritoneal cavity should be flushed out with normal saline solution at a temperature of 110° . When the abdomen has to be opened and pus is present but no general peritonitis has occurred, the peritoneal

cavity can be easily shut off by means of sponges. With regard to the treatment of the appendix, it is poor surgery to search for and remove it in every case; if the appendix present itself, it may be removed, but if it be not obvious or if it form part of the wall of an abscess it should be left. If obstruction of the intestine has occurred before the opening of an abscess resulting from appendicitis, first deal with the abscess cavity, and then break down the adhesions, which are compressing the bowel. In recurrent appendicitis the appendix should be removed, but even in these cases it may have to be left. When removing an appendix, a peritoneal flap should be formed, as simple ligature is unsafe. There are four points on which information is desirable:—1. Are there such conditions as rheumatic and stercoral appendicitis? 2. What signs are of most value in deciding the question of early operation? 3. Should an operation be done when, in cases seen later, a firm, slowly growing, well-defined tumour is felt in the iliac fossa? 4. What is the best procedure for dealing with cases of appendicitis between the third and the sixth day?

Alcohol in the Treatment of Pneumonia.

We quote the following from Dr. J. M. French, of London:

"I am aware that there is probably no one point upon which there is a more radical conflict of authority, or difference of practice, than in the use of alcoholic stimulants, so-called. There is good authority for the free use of alcohol in all stages of the disease as a routine measure; for its absolute and entire disuse in every case; and for all the intermediate stages of use and disuse.

My own convictions have been arrived at slowly, and not without an attempt to study the subject at the bedside carefully. Starting with the supposition that alcohol is a true stimulant, in the sense of increasing vital action, I have come gradually to look upon it as an anæsthetic and paralyssant instead, and to believe that whatever good it accomplishes in this disease is done either by its paralyssing effect upon the vaso-motor nerves, thereby lessening the blood pressure and the

consequent work demanded of the heart, in cases where the action of that organ is dull and laboured, or else benumbing influence upon the nerve centres of sensation, thus relieving unpleasant sensations, and producing a feeling of comfort on the part of the patient. The first use can be as readily accomplished by the use of nitro-glycerine and other similar agents. As to the second, I consider that in fulfilling this indication by the use of alcohol there is the same danger that there is in the use of opiates and other narcotics for the same purpose, namely, that the real condition of the patient will be masked by the drug used to lessen sensation, and hence his real danger increased. I am, therefore, inclined to restrict its use very nearly within the limits marked by Lawson Tait, the great ovariologist, who, when asked, "Do you never give your patients alcohol?" replied: "Never, unless I know they are going to die, and then only to give them an easy death."

There are few authorities who are accorded greater weight in the medical world than Strumpfl, who speaks on this subject, in his work on the Practice of Medicine, as follows:

"We have yet to make some remarks upon the very extensive use of large amounts of alcohol in pneumonia. Without doubt a free use of alcohol is necessary in drunkards, especially when delirium tremens is beginning, or is already pronounced. Since the withdrawal of any poison that is taken habitually, like nicotine or morphine, may excite the severest symptoms, the sudden withdrawal of alcohol from drunkards may have the worst results, while, if we give an abundant supply of the stimulant, to which the nervous system is accustomed, we sometimes succeed in avoiding the onset of severe nervous symptoms, like collapse and failure of the heart and respiration. It is quite a different matter with patients who, before their illness, have not been accustomed to take alcohol at all, or who took it only in small amounts. It may be true that in those cases small amounts of wine may have a stimulating and exciting action, although we could never satisfy ourselves of the often praised influence of alcohol upon the action of the heart. We hold it, however, unjustifiable to force large

amounts of alcohol indiscriminately upon every patient with pneumonia, often in spite of great resistance upon his part. Why should we expect sick people to bear doses of alcohol which have only bad results in healthy men unaccustomed to them?"

Another reason, on my own part, why I now use much less alcohol in pneumonia than formerly, is that since adopting the systematic administration of heart tonics, I find far less occasion, either real or apparent, for it. *Nux vomica* and *digitalis* seem to me to give more permanent strength, while ammonia and nitroglycerine furnish a quick acting stimulant in case of urgent need.

Still another reason for looking with disfavour upon the routine use of alcohol especially, is the fact that my observation has convinced me that those physicians who make a practice of using it in this manner, have a needlessly large death-rate in pneumonia as the result.

Treatment of Bronchitis in Children with Baths.

It is a well known fact that in young or delicate children an ordinary attack of bronchitis may involve the smaller bronchial tubes, and that the danger then often becomes extreme. Children, then, who are found to be suffering from inflammation of the larger bronchi, and who are at all feverish, are given baths at a temperature of 100° F. for seven or eight minutes at a time, and every three hours or so, until their temperature is found to be only, or below, 101° F. It is stated that the feverishness disappears rapidly, that the skin acts freely—thus, of course, relieving the lungs—and that the chest symptoms rapidly subside. In one hospital, it is stated that this plan has been pursued, during the last ten years, in more than 100 cases, and with invariable success, a fact which will keenly impress those who know how frequently, under ordinary medical treatment, these cases progress from bad to worse. It is a point upon which much stress is laid by French physicians that the temperature of the water must be maintained at about 100° F., because the object is more to relieve the lungs, so thereby relieving the skin, than to reduce the temperature

by chilling the surface of the body, especially as this latter proceeding might easily be followed by the very serious results which the treatment is designed to prevent. After all, the method is very analogous to the old fashioned plan of a hot bath with a handful of mustard in it, recommended for those who had caught a severe cold, and which, by drawing the blood to the surface of the skin, relieved the deeper organs of the body, and thus checked or prevented inflammatory conditions.

Somatose.

R. Drews (The Practitioner) describes the action of somatose upon the mammary gland in nursing women. After referring to the observations of Wolfe and Taube, he relates his own researches in twenty-five cases, appending short details of five characteristic cases. The causes of the insufficiency or arrest of the milk secretion were either anæmia, loss of blood, enfeeblement from repeated pregnancies, severe mental perturbation, or some illness occurring during pregnancy without any contraindication to suckling. Under the somatose treatment there was in all twenty-five cases an abundant secretion of milk, so that the infant was suckled for several months longer, and the difficulties attending suckling disappeared. These observations show an important success in the feeding of infants, and the method is of special value in the case of premature infants or in those who have been artificially fed, but in whom a return to the mother's milk is of vital importance. All the ordinary measures had been tried in these cases before the somatose, but without success. The increase in the secretion of milk was not due to any action of somatose upon the patient's appetite and general nutrition, but in the author's opinion to a specification on the mammary glands. It would be interesting to know whether there was any alteration in the quality of the milk under this treatment. Before artificial feeding is had recourse to the author would, therefore, recommend the use of somatose in cases where the milk is insufficient or where previously suckling was not found possible, provided, of course, that the breasts are sufficiently developed, and no disease is present

which precludes suckling. The dose of somatose is a teaspoonful given three or four times a day in milk, soup, etc.

Modern Methods of Intra-uterine Medication.

Playfair (The Practitioner, September, 1896,) says; My own decided preference as a means of intrauterine medication is for the application of the negative electric current after the plan introduced by Apostoli. I make this statement with fear and trembling, for the mere mention of Apostoli and his methods acts on some gynæcologists as a red flag does on a bull. No words are too strong to express their contempt for a remedial agent which has certainly been discredited by the overzealous advocacy of its originator and by the prejudice of its opponents. It must be admitted at once that as regards fibromyomata the use of electricity has not by any means justified the expectations, far too high pitched as they were, at one time formed with regard to it. This is not the place to discuss that subject; but, briefly, this is due to the fact that in small hæmorrhagic fibroids electricity, although its hæmostatic power seems to me to be proved to demonstration, is too uncertain in its action to be reliable, and that from physical causes varying in each particular case and needless to discuss here, and that therefore radical treatment by removal of the appendages is generally better; while in large tumours it is usually inapplicable. The use of the current to promote absorption has been, I fancy, discontinued by common consent as too dangerous for general use. But the application of the negative current to the endometrium in non-myomatous uteri, for endometritis and severe dysmenorrhœa, is on altogether a different footing. The precise method of its action is doubtful, but it appears to modify the nutrition of the endometrium and its deep-seated glands in a very remarkable manner.

I have rarely used more than five or six applications—generally three after one period, and two after another—these consisting of from 80 to 100 milliamperes of the negative current. This is practically painless, nor have I seen a single case in which any subsequent mischief resulted. The efficiency of this method

of intrauterine medication is best proved by the frequency with which it is followed by pregnancy in old standing cases of acquired sterility. It will generally be admitted that there is no better test than this of a healthy endometrium when the pregnancy has been preceded by a long period of sterility,

Take, for example, such a case as the following, which I select almost at random:

Mrs. L—. No previous pregnancy. Suffers from very profuse uterine catarrh and severe dysmenorrhœa, for which she has had the cervix dilated and the endometrium curetted by a well known gynæcologist, with no great benefit. I treated this patient with the electro-negative current in October and November, 1892, making five applications. The discharge was stopped and her general health greatly bettered. She missed her period in January, 1893, and was delivered of a healthy child in November of the same year.

It would be difficult to doubt the relation of cause and effect here, and it is to be noted that this patient had already been treated by *curettement*. I could easily produce other examples of the same kind.

I am, therefore, myself decidedly of opinion that for neatness and efficiency the electrical treatment of the endometrium is clearly the best at our disposal in suitable cases.

It has, however, various drawbacks, which will prevent its general adoption:

1. It requires a costly and elaborate plant, which few practitioners can be expected to provide themselves with, and the proper management of which involves much special study.

It is precisely the attempt to avoid the necessity of procuring this which has led to the method being discredited, since many have satisfied themselves with cheap and inefficient apparatus in the shape of portable batteries, altogether unreliable and constantly getting out of order.

2. It is unsuited for use in the patient's own home, or even in the consulting room, since the assistance of at least two properly trained nurses is required, and not less than half an hour must be given up to each application. Hence, to work the method properly, it is advisable to

send the patient to a private home or hospital where the necessary apparatus has been fitted up, and where she can rest in bed for a couple of hours after the application.

All this is very tedious and troublesome—so much so that I have been obliged to give up the use of this treatment in hospital work, and in cases in which time is important.

When it can be used efficiently, however, my confidence in it remains unabated. Since it does not require the use of an anæsthetic, nor any preliminary dilatation of the cervix, it appears to me to be, in most cases, decidedly preferable to *curettement*. The difficulty and complexity of the process, however, make it quite intelligible why it has not been more generally used, and why so many look upon it with disfavour. *Curettement* on the other hand, is a simple matter. Its very simplicity has, it is to be feared, led to its having been used more often than is altogether justifiable.

Dermatitis and Alopecia after the Use of the Roentgen Rays.

Marcuse, in the London Lancet, relates a case in a young man, aged 17, in whom repeated experiments were carried out for the purpose of investigating the new photography. During four weeks these investigations were made once or twice a day. The sittings lasted 5 to 10 minutes, but longer when the chest was being illuminated. Hittorf's tube was sometimes placed close to the body, and never more than 25 cm. away from it. The heat from the tube was very slight. The shirt was always worn when the chest was being examined, and the man was completely clothed when the head was under investigation. At first a slight diffuse redness was noted in one-half of the face, more marked above the ear, along with some desquamation. The investigation was not stopped at once, as no importance was attached to the redness. When he was seen by the author there was a sharply defined patch just above the ear where the hair was very thin. The hairs, which could be plucked out without pain, showed signs of degeneration. There was undoubtedly a commencing alopecia. In the half of the

face there was marked injection of the conjunctiva besides the redness. On the back there was a space as large as a plate over which the epidermis was completely separated, and the exposed corium showed hæmorrhages and exudation. There was much tenderness here, but curiously enough no pain was felt until shortly before the above appearances were observed. On the front of the chest over a space of about the same size, similar but not such advanced changes were present. Improvement soon occurred. The internal organs were healthy with the exception of a systolic murmur, which could not, of course, be attributed to the use of the Roentgen rays. The dermatitis resembled that caused by burns, etc. Thus in the use of the new photography either the current or the rays themselves acted on the human skin, but it cannot be stated with certainty which was the important factor in producing the lesion.

Four Great Branches of Medicine.

For over two thousand years four great branches of medicine—A. Sherican Delapine, British Medical Journal—have been more or less clearly recognised. These are familiar to us under the names of physiology (including anatomy), pathology, hygiene or preventive medicine, and therapeutics. I hardly need say that these branches of medicine are themselves founded on physics, chemistry and biology. To the initiated student of disease this subdivision matters little; the limits of his investigations are not indicated by the accident of his being either a physiologist, a pathologist, a therapist, or a hygienist. It is the nature of the subject investigated that should determine the scope of an investigation. Far from me the thought that any one will ever be able to grasp all the aspects of a natural phenomenon and see it in its entirety, but I am quite certain that when we attempt to see nothing of Nature but what can be revealed by certain methods, we lose sight of many of the links which establish a connection between causes and effects. This obscuration is never so fatal as when, in addition to the limitations introduced by methods, are super-added those created by preconceived ideas or hypotheses (when these are used

as permanent guides instead of a temporary helps). Hippocrates has well said: "Those who, having undertaken to speak or write about medicine, have first laid down for themselves some hypothesis to their argument, such as hot or cold, or moist or dry, or whatever else they choose (thus reducing their subject within a narrow compass, and supposing only one or two original causes of death among mankind) are all clearly mistaken in much of what they say."

Appendicitis.

Dienlafoy says (The Hospital) is invariably the result of the conversion of the appendicular canal into a closed cavity. This may take place at any point of the canal, and is accomplished in various ways. As a rule, there is partial obliteration, due to slow and gradual formation of a calculus, which results from a genuine appendicular lithiasis, comparable to biliary and renal lithiasis, and which the author regards as belonging to the patrimony of gout and arthritis. At other times, the conversion of the appendicular canal into a closed cavity is the result of a local infection, comparable to the changes occurring in the bile ducts is so called catarrhal Jaundice—mostly, in some cases, this conversion results from the slow and gradual formation of fibrous stenosis stimulos to constriction of the urethra. Several of these causes may co-exist. Symptoms of appendicitis do not supervene until the conversion of the appendix into a closed cavity is completed. The microbes existing in the appendix, which before have been harmless, then multiply and become virulent. The virulence may be such that the patient may die from this cause alone, with scarcely any perceptible lesion. At other times, the infection is propagated from the appendix to the peritoneum without a sign of perforation of the walls of the appendix. Lastly, the appendicular infection may end in gangrene and perforation of the appendix, followed by the evolution of the different varieties of perforative peritonitis. Le Dentu thinks that when there is a distinct inflammatory reaction, definitely localised in the cæcal region, and when the course of the disease remains normal, without any indication of serious danger threatening, it is

advisable to let the abscess definitely form before intervention. In such cases a very early operation may result in dispersing the infective agents, hitherto concentrated as a limited spot. On the contrary, the moment it has become evident that the purulent focus has formed, operation becomes opportune and imperative. Among cases terminating in circumscribed suppuration there are some which the anterior situation of the abscess renders benign, and others in which its posterior or deep situation is a source of danger. In the latter there is no occasion for reproving oneself for not having intervened at the onset, inasmuch as there was nothing threatening in the initial symptoms. Operation is urgently demanded: (1) When the disease at once takes the form of generalised peritonitis, or when, in the course of appendicitis, signs of extension to the entire peritoneum supervene. These cases must not be confused with those in which symptoms of "peritonism" exist. (2) When depression is manifested by such symptoms as absence of spontaneous pain, normal or nearly normal temperature, with small and extremely rapid pulse, defective urinary secretion, retracted abdomen, and cyanotic condition of the extremities. (3) It is dangerous to abstain from operation when the morbid symptoms recur. Unless the attacks come too close together, it is well to wait five or six weeks, when most of the exudation will be found to have disappeared, and the operation becomes a very simple one. Meyer considers that the indications for operation are as follows: (1) In cases of diffuse perforative appendicitis the operation must always be done at once. Patients have the best chance to recover, if operated upon within the first twelve hours, although exceptionally they get well without operation. (2) In cases of acute appendicitis the patient always needs careful observation. If the pulse goes up above 116 to 120, and has a tendency to stay there, the indication for an operation is given. The temperature is not of value in deciding the question of operation. In case of doubt, the operation is better than waiting. (3) In case subacute (mild) attack of appendicitis, also after the first severe attack, from which the patient recovers without immediate operation, the appendix should be removed. The appendix, once in-

flamed, has to be looked upon as a diseased organ which is very apt to give repeated and more serious, even fatal, trouble in the future. Kime thinks that by the use of salines and disinfectants many patients can be relieved by unloading the colon, and diminishing the hyperæmia. If a patient progresses satisfactorily for some days and then becomes seriously worse, an operation should be done without delay. The appendix should not be removed when an abscess cavity is opened which is walled off from the general peritoneal cavity.

Alcoholic Stimulation.

Dr. B. W. Richardson in a very interesting article in *The Hospital* says it has been my duty to dwell in these columns on the subject of alcohol as a remedy in disease, and I have tried to show that it can be dispensed with as a remedy in the most satisfactory manner, so that we can do very well without it. I have never, however, striven to show that alcohol is without its effects, and the subject before the profession is not simply alcohol as a remedy, but stimulation as a mode of cure; a subject that more than ever is being practically discussed.

In the days of the noted Dr. John Browne there was quite a fierce controversy upon alcohol. The Edinburgh School, with no less an authority than Cullen at its head, was averse to stimulation, and amongst the stimulants employed alcohol largely lost its hold. Browne made his appearance, and finding stimulation one of his methods of treatment, fell back upon alcohol, and got himself into trouble socially as well as medically. The Brunonian system was one of stimulation, and was so strong for the moment that it had its disciples and advocates. It set its author at variance with his brethren; he, in its defence, was obliged to administer her great remedy on—what may be considered as—"the sly," and got into scrapes from which he was, with difficulty, extricated. He made his theory, but he did not make a sound reputation with it. He certainly declared that alcohol was an antiseptic, and to that extent did good service, but he did not prove its practical value on the list of remedies. A patient suffered from fever,

and Browne surreptitiously gave him, or had given to him, abundance of alcohol. Under the treatment the patient sank and died; a post-mortem was carried out, and the tissues of the body, died as they were, seemed fresh to the eye and inodorous. Browne noticed their life-like character, and called attention to the circumstance that his treatment preserved the parts as if they were alive, a statement well deserving of notice and comment, as worthy of observation as are the evidences of a museum where the specimens are retained in spirit in a state of preservation.

The treatment of living matter and living function under alcohol is entirely different from the treatment of dead matter by it, and here lies the point that, as doctors, we have to decide upon and base our instructions. We can safely use alcohol as a preservative of dead substance, but can we use it or anything of the same class as safely as a stimulant on living material? In one instance we are recognising its true qualities; in the other we are using it for the sake of its vital action, and we cannot logically do both. Preservation, in so far as it means preservation merely, is freedom from decomposition, not from death. Life is active continued decomposition, but with reconstruction. If I touch an animal body with a thing that arrests action I touch its life and it must succumb; must become dead-drunk or dead-dead.

The more the profession, ignoring prejudice and old practices, think of stimulation as a mode of cure and argue it out, the better for the world. What is known as practice has proved nothing whatever in the matter. We have seen people dead drunk recover consciousness, and we have seen sick people recover from their illnesses under alcohol, so that we have learned to look at the occurrence as natural, or even as more than natural, according to the law of necessity. But when we think over it we have seen persons, by the score, who have been well and hearty, though they have never been dead-drunk; and we have seen persons who have recovered from their sickness, although they never imbibed a drop of stimulant, and the fact that they get well under such circumstances is sufficient evidence that the stimulant has not been required. Men who are given to prescribe alcohol actually talk as if all per-

sons under their care got well from the treatment, which, indeed, would be the case if they were right, whereas, under the alcoholic "sheet-anchor," the sick die in spite of it, and sometimes in sheer consequence of it.

Alcohol, in the end, does not stimulate, it really depresses if it does anything at all. We must admit it does something, and he is a mere fanatic who questions its effects. There can be no doubt that for a short time it whips on the circulation. It quickens the heart-beat; it increases the circulation of the blood; it excites the brain; it preserves the tissues from decomposition; but is it thereby of service? What it does seem to the profession, and feels to the sick, to be stimulation, and upon this all its assumed virtues rest. It appears to give new life; it raises the weak for a short time, even if it quickens death. It acts like running or drinking, or becoming mentally excited, and although no one would use these acts as remedies for disease, they might appear to have their advantages.

I do not agree with those who are astounded, and express their astonishment, when they see doctors giving wine or recommending spirits, wine, or beer to persons under their care. Life is a very slender thread; the doctor's art is very limited; the doctor is called to do; the people follow the doing, and constantly they feel stimulation render them service temporarily. If the doctor told them the truth, namely, that wine is the most detestable of mockers, they would not believe him, and so he is daily and hourly tempted to evoke phenomena which, from the beginning to the end, are a deceit; which shorten instead of prolong existence, and which may kill instead of cure. It is true, nevertheless, that every doctor should think for himself concerning the phenomena, and should prefer to rest on the permanent physiological, rather than on the empirical modes that lie at his disposal.

Eucaine, a New Substitute for Cocaine.

Eucaine, says Vinci, is itself a base of a somewhat insoluble nature; the hydrochlorate which, for many reasons, seems a more suitable salt for general purposes, is much more soluble in aque-

ous media, and may be used for producing local anæsthesia in solutions of 2 per cent. strength. It may, however, be employed in 5 per cent. strength. The 2 per cent. solution will produce complete local anæsthesia in three minutes, and the effects last for nearly half an hour. The general effect on the cardio-vascular system appears to be less noxious than that of cocaine, inasmuch as, although the frequency of pulse is decreased, the blood pressure is not increased, and for this reason is less likely to produce syncopal effects. In its local effects it differs from cocaine in that it produces anæsthesia with hyperæmia, instead of producing a condition of ischæmia, as is the case with the latter body. When used for ophthalmic purposes it has the further advantage of not interfering with the action of the muscles of accommodation. In a recent paper by Berger several points are noticed. He mentions that it may either be obtained in a crystalline form, methyl alcoholic solution, or in the form of scales from aqueous solution. That latter is devoid of certain irritating properties which attach to the crystalline variety. With regard to ophthalmic use, Berger points out that it has no effect on the size of the pupil; but he asserts that when dropped into the eye in full strength (3 per cent.) it at first causes a stinging sensation. To avoid this he recommends a 1 per cent. solution to start with, which is to be increased after a few minutes to the full strength. With ordinary cocaine, owing to the constriction of the vessels which it causes, and the consequent ischæmia, Berger has noticed a tendency to corneal ulceration or sloughing. With eucaine, on the other hand, there is a tendency to capillary dilation, which, however, he asserts, never interferes with surgical operations in the eye. But by mixing eucaine in equal parts the two effects are neutralized, and for certain purposes such a mixture may prove of use. Eucaine can be sterilised before use by boiling without undergoing decomposition, and this Berger considers to be one of the most valuable properties of the new body.

Prevalent Malarial Conditions.

When two such well-known drugs as antikamnia and quinine are offered to the profession it hardly seems necessary to

indicate the especial class of affections which call for their use. Antikamnia may now unquestionably be called a perfect substitute for morphine, for internal administration. It has complete control over pain, while it is free from the undesirable after effects of the alkaloid of opium. But antikamnia not only possesses the good qualities of morphine without the bad, but it also has the properties peculiar to the coal tar series. In cases of malarial fever the combination of antikamnia and quinine should be given as a prophylactic and cure. For all malarial conditions quinine is the best remedy we have. But associated with this condition there is always more or less pain, which often renders the life of the individual uncomfortable, if not positively miserable. Antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. There are a number of ailments, not closely defined, which are due to the presence of malarial poison. All such conditions are greatly benefitted by the use of this combination. "Antikamnia and Quinine Tablets," each containing $2\frac{1}{2}$ gr. antikamnia, $2\frac{1}{2}$ gr. sulph. quinine, meet the indications most frequently. In headache (hemicrania), in the neuralgias occurring in anæmic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachectic condition, the regular administration of these tablets will produce the most happy results.

The Use of Argonin in the Acute Stage of Gonorrhœa.

In the August issue of the Journal of Cutaneous and Genito-Urinary Disease, Dr. Geo. K. Swinburne, of New York, relates his clinical experience with Argonin in the treatment of 51 cases of acute gonorrhœa observed in his service at the Good Samaritan Dispensary. This drug is a combination of silver with casein, and is a white powder, which, carefully heated with water over a water bath, forms an opalescent, viscid, albuminous fluid. The maximum strength of this solution is 10 per cent.; the reaction is neutral. Of the powder, fifteen parts contain as much silver as one part of sil-

ver nitrate. A peculiarity of this compound is that the silver is not precipitated by the addition of sodium chloride, nor is the compound decomposed by contact with albuminous substances. According to Jadassohn it possesses powerful germicidal properties; it is not irritating to the mucous membrane of the urethra even in the concentrated solution, nor is it escharotic; it possesses, however, no astringent properties. As his supply of the drug was limited and as he was desirous of using it in as many cases as possible, the author adopted the following plan:

The patient was examined, history taken, character of the discharge noted, a smear taken on a slide and stained, and the patient made to urinate in two glasses always; then the urethra was irrigated with a very weak (1 to 6,000) solution of permanganate of potassium; if the anterior urethra only was affected, then the anterior urethra only was irrigated; if the posterior urethra was also involved, intravesical irrigation from the meatus was practiced; then the patient was placed on the table, and the anterior urethra slowly filled to distension, and the patient made to hold the lips of the meatus together for five to ten minutes. When posterior urethritis was present, I slid a small, soft rubber catheter, about 15 F., which had been cut off so that it was only seven inches in length, down past the cut-off muscle, and injected two drachms of the solution into the posterior urethra, withdrew the catheter, and filled the anterior urethra. The catheter was lubricated with the solution of Argonin itself, which forms an excellent lubricant. I began cautiously with a 2 per cent. solution, gradually increasing to the full strength (10 per cent.), but after a few trials, finding that there was no inflammatory reaction and no pain caused by the solution, I used the full strength in all cases. The patients came daily except Sunday; a smear was taken on a glass slide and stained for gonococci, generally every other day, sometimes daily, and if the discharge disappeared, the shreds in the urine were collected on a slide and stained. No internal medication was given except for the regulation of the bowels. Of course, alcoholic beverages were cut off, but no special restriction of the diet was enforced, except that the patients were advised that milk and seltzer

as a beverage was a good thing. Smoking was not prohibited.

In all the cases a rapid diminution in the discharge was noticed while they were under treatment, and in a majority of them there was noted a rapid diminution in the numbers of gonococci, and in several cases in which the presence of the gonococci was established at the first examination these were not found in the smear taken on the third day, but in several instances where the patient omitted treatment for a day or several days, there would be a slight increase in discharge and a reappearance or an increase in the gonococci. In some of these cases the germ would be rather persistent, sometimes increased in numbers; but in several instances, especially where treatment had been omitted, the renewal of treatment would quickly eliminate them again.

One of the most noticeable features was the absence of any inflammatory reaction following this method of treatment; on the contrary the inflammation of the disease *per se* is markedly diminished from the very start; even in the earliest stages the ardor urinæ is markedly diminished, in most cases completely so. Chordee was twice complained of, but inquiry as to what the patients understood by chordee established that they suffered from simple erections, which naturally were somewhat painful. The treatment itself caused absolutely no pain in any case, and frequent inquiry as to effect of the injection elicited the answer that "there was a little burning for a while but that was all."

A detailed history of a number of cases is given by S. Of those coming with a first attack he gives three which he considers remarkable. One of these cases is as follows:

Case 3457, first attack; discharge first noticed that morning; exposure three days ago; very slight, thin discharge; stained; epithelial cells, pus cells, containing gonococci, and gonococci outside free; both glasses clear; first contained one shred, which sank; Argonin, 10 per cent. The second day, no discharge; shred in first glass; Argonin, 10 per cent. The third day, came without having passed the night urine; no discharge; one shred in first glass; stained; no gonococci; epithelial cells; Argonin, 10

per cent. The fourth day, same as yesterday. The fifth day, no discharge; patient notes watery discharge on rising in morning; urine held six hours; one shred in first glass which floated, then slowly sank; stained; contained pus; epithelial cells; no gonococci; Argonin, 10 per cent. The sixth day, no discharge; urine held six hours; one floating shred in first glass; no treatment. The seventh day, same; no treatment; still under observation. This case I regard as cured at the first injection.

Another case similar to the above the author considered cured at third injection. He then goes on to say in conclusion:

I have used Argonin in about a dozen cases of chronic urethritis which were rebellious to other modes of treatment, and have been impressed with the results. My impressions regarding this drug are that it is absolutely harmless; that it shows marked power in causing the disappearance of the gonococcus; that it has peculiar power in allaying the inflammation of the disease, and I am strongly impressed by the degree of comfort that the patients possess even in the most acute stage. The only observations which I have not yet been able to make, on account of the shortness of time the drug has been in use, is the liability of these cases to relapse, and of this a further study must be made. Naturally, if the gonococci are all removed, there will be no tendency to relapse.

Jadassohn seemed to think that by the addition of 0.3 per cent. liquor ammoniæ caustici he obtained greater power of penetration in chronic cases.

In forming a judgment of the value of the treatment in these cases it is to be borne in mind that they receive only one injection a day, and none on Sunday; that as a rule they have to work hard to maintain themselves, and that many are machine operatives, probably the worst trade they could follow as regards this disease, and many lose their dinner hour in order to receive treatment.

Tuberculosis of the Alveola Processes.

Zandy (Clinical Journal). While this is considered to be a rare condition the author was able to collect thirty-seven cases from the literature of the last twenty-

five years. He also gives the history of a patient observed at the clinic of Bonn.

The teeth are of the greatest importance in the etiology of this condition. Carious teeth are the seat of entrance for tubercle bacilli. Wounds of the alveolar process, especially those caused by extraction, are of grave importance. Whether the bacilli come from a phthisical lung or from the outer world, they need no better soil for development than the alveolar cavity left after extraction. There is no seat of predilection in this disease, and any part of the alveolar process may be affected. As a rule, other parts of the buccal mucosa are involved at the same time.

It is very likely that the pulmonary lesion which is found at the autopsy is secondary to the alveolar disease. Syphilis is no bar to a tubercular involvement of the alveolar process. The disease seems to develop between the ages of 15 and 50. Males are more frequently affected than females.

Usually the gum will swell and become loose, soft, and bleed very readily. This will soon be followed by ulceration, with pale, sluggish granulations. Following this the teeth will get loose and fall out and the bone may become necrotic. Pain is not very marked, but salivation is very profuse and the mouth has a very foul odor. A differential diagnosis will be made from syphilis and carcinoma. The diagnosis will be facilitated by the presence of tuberculosis of the larynx or lungs.

The best therapeutic measure is thorough curetting and removal of all suspicious tissues. This can be followed by applications of equal parts of lactic acid and distilled water to all recurring foci.

Infantile Indigestion.

The dangers attending the artificial rearing of infants are well recognised, and a very large literature has grown up on the subject. It is curious, however, says the editor of the Hospital, to notice how little attention has been paid to the indigestion which so often occurs in breast fed infants, and is, in fact, in a large number of cases, the reason which leads mothers to give up suckling and revert to bottle feeding, on the plea that her milk

"disagrees." Probably a tenth part of the trouble involved in looking after bottles and in sterilizing and otherwise preparing milk, if expended in rectifying the ailments which cause a mother's milk to disagree, would enable her to perform her natural functions, and to become a mother in a much wider sense than when she limits her function, as is so frequently the case, to the mere bearing of children. In a paper lately read before the Edinburgh Obstetrical Society by Dr. James Carmichael, he points out that the indigestion of mother's milk is more frequently intestinal than gastric, diarrhoea being more common than vomiting, this being largely due to indigestion of the fatty and proteid elements of the milk. On inquiry as to the causes of this, we find, first, that it may arise from insanitary conditions, which may affect both the mother and the child, such as low-lying, damp dwelling houses, effluvia from drains, or malaria poison. Very often, however, the defect is purely maternal. Debility is a frequent cause. Too frequent pregnancies, for example, may render a mother quite unable to produce healthy and nourishing milk for her later children, although she may have suckled her first child perfectly well. Inefficient food among poor women, and overwrought nervous system among the over-educated, may produce the same inability. Then ill health of any kind in the mother is apt to prove a hindrance to suckling, and if this ill health be of a nature that can be removed the function may be restored. Irregular suckling is, however, one of the commonest causes of indigestion in babies. This often arises from over anxiety about the child, and from the bad habit of giving it the breast whenever it cries. Children, like grown up people, always thrive best when fed with strict regularity.

Sanmetto in Bright's Disease.

Dr. C. E. Stafford, Trigg, Va., writing says: "I have used Sanmetto with the very best results. I succeeded in making a case of Bright's disease much more comfortable by the use of Sanmetto, and am satisfied it should be used oftener in this disease. I regard Sanmetto as an efficient and elegant remedy for diseases of the genito-urinary organs."

Hydrotherapy.

According to Von Vogl hydrotherapy is of great value in the prevention of tuberculosis. It improves the cardiac action, deepens breathing, and increases nutrition. It is also of service in early and even in more advanced pulmonary tuberculosis. The fever and cough are lessened by it, and the sleep and appetite improved. A gain in weight may also often be noticed. The acute infective illness, especially typhoid and scarlet fever, acute inflammation of the lungs, may be thus treated with much advantage. The author draws attention to the considerable diminution in the mortality of enteric fever since the introduction of Brands bath treatment, and he calls attention to the comparative uselessness of medicinal antipyretics, intestinal antiseptics, etc. The bath treatment is harmless and effective in skilful hands. To combine the required energy and caution in the hydrotherapeutic treatment of acute illness is not less important than in that of the chronic diseases, and requires both theoretical knowledge and practical experience.

The Best Hypnotic for Pediatric Practice.

The question as to what constitutes the best hypnotic for children can only be decided after careful study of both the advantageous and objectionable features of these preparations. Efficiency and rapidity of action should go hand in hand with safely and agreeableness of administration. While a perfect hypnotic has not, and probably never will be discovered, Trional, according to many authors more closely approaches to perfection, than any remedy yet introduced. It is readily administered to children, does not affect the digestive organs, and acts rapidly, safely and efficiently, the sleep produced closely resembling the normal. The little patient wakes refreshed and is not troubled with after effects. Dr. Ruhemann (St. Louis Medical and Surg. Journal, June, 1896,) in an exhaustive article on Trional cites a few instances of its prompt efficiency in pediatric practice which are well worthy of mention.

In several cases of cerebral concussion affecting girls 7 to 10 years old, doses of

0.5 gm. Trional in the evening had a very favorable influence upon the disturbances of sleep resulting from the horrible dreams, the crying out and jactations. In a case of violent chorea, Trional controlled the existing insomnia, and even ameliorated the spasms. A nine year old girl, who one year previously had suffered for four months from chorea, had a severe recurrence during which muscular contractions were present even during nights rest, with grinding of the teeth and repeated laceration of the mucous membrane of the cheeks, so that sleep was considerably disturbed. After exhibition of 0.5 gm. Trional the contractions completely subsided and quiet sleep followed. At the same time a diminution of the violence of the spasms occurred during the day, so that after these and similar experiences it is certainly worth the while to employ small doses of Trional repeated several times daily, for the relief of chorea.

Conception after Removal of Both Ovaries and Tubes.

According to Stansbury Sutton and Gordon conception can take place after the removal of both ovaries. They relate in the Gyn. and Ob. Journal two extraordinary cases, for which they do not profess to account. On October 20th, 1892, Sutton removed two large multilocular ovarian cysts from a woman aged 28. The ligatures lay close to the uterine cornua. On June 10th, 1894, the patient gave birth to a male child, weighing 10½ lbs. On February 25th, 1896, she was once more delivered. Gordon, in March, 1894, removed both ovaries and tubes from a woman aged 33, the subject of chronic pelvic mischief. He believed at the time that no fragments of the ovary were left. From a few months after the operation she menstruated regularly till June, 1895, when she became pregnant, and was delivered of a healthy child in March, 1896. The only explanation is that the stump of one tube must have opened, allowing an ovum from a piece of ovarian tissue to pass through into the uterus. In a second case, where pregnancy followed three years after operation, it was not absolutely certain that both ovaries were removed. A discussion followed the reading of the above

cases at the annual meeting of the American Gynecological Society, but no satisfactory explanation of the occurrence of pregnancy was brought forward.

Thymus Feeding in Exophthalmic Goitre.

Mr. David Owen before the recent meeting of the British Medical Association read a paper on Thymus Feeding in Exophthalmic Goitre. He described three cases of the disease under his care treated with thymus gland. All three of his cases had been restored to health by the treatment. The dose of the raw gland was from half an ounce to an ounce three or four times a week. The relief obtained in these cases must have been more than a coincidence, as in one of his cases and in several recorded by others discontinuance of the gland was followed by relapse, but on resuming it the patients again improved. Upon one occasion a patient of his who always had been benefited by the treatment failed to respond to the glands. This was found to be due to their having been taken from full-grown sheep. On giving calf's thyms most urgent symptoms were at once relieved, especially dyspnoea, palpitation, and tremors. The heart, which had been irregular and rapid, improved greatly in a few days. Others had had quite as striking results. Mr. Owen observed that the thyms glands had been found hypertrophied in this disease by a number of observers, including Mœbius and Marie. Joffroy had remarked that this "revival" of the thymus gland was found almost exclusively in exophthalmic goitre. It was clear, therefore, that this gland played a part in the disease, and there were grounds for believing that its hypertrophy was compensatory, its internal secretion serving to neutralize the toxic agent which caused the disease. The probability of this is supported by the fact that other lymphoid structures, including the spleen, were also found enlarged, and it was well known that increased lymphoid activity with consequent leucocytosis occurred in toxæmic conditions and served an antitoxic purpose. It was therefore probable that the hypertrophy of the thymus gland and spleen was compensatory. Splenic ex-

tract had been found beneficial in Grave's disease by Professor Wood of Philadelphia. Further confirmation of this theory was derived from the fact that pregnancy often relieved Graves's disease, and this might be due to the physiological leucocytosis which existed then. It was noteworthy that this disease is almost unknown in infancy when the thymus gland is present. The fact that the thyroid gland is more active during infancy than it is later would render the infant more liable to hyperthyroidisation were there not some counteracting influence which the thymus gland possibly supplied. He thought there was evidence of antagonism between the thyroid and thymus glands. Thyroid extract increased tissue waste. On the other hand, the thymus gland was most developed during infancy, and in hibernating animals at each period of hibernation, which pointed to this gland exerting an inhibitory influence over waste. This theory had been strengthened by the results of experiments and by the effects produced by disease of the thymus gland. The thyroidal secretion, too, had a stimulating influence over the cerebral functions, and increased activity of the sexual organs was associated with enlargement of the thyroid gland. On the contrary, during hybernation, when the thymus gland attains its greatest size, the cerebral and sexual functions are suspended and in infancy are undeveloped, but undergo rapid development at puberty, when the thymus gland finally disappears. This apparent antagonism supplies a hypothetical explanation of the mode of action of thymus in the treatment of exophthalmic goitre—a disease most probably due to excessive activity on the part of the thyroid gland.

Lithiasis of the Gall Bladder and Cholecystostomy.

Tuffier in a paper published in the Edinburgh Medical Journal on the diagnosis and treatment of calculi of the gall bladder, directs attention in the first place to the difficulty occasionally met with in establishing the differential diagnosis between hydatid cyst of the liver and calculous dropsy of the gall bladder. In a case here recorded the gall bladder

contained, in addition to twenty-three calculi, a pint of fluid which was perfectly transparent, and as clear and limpid as spring water. This fluid, it is stated, was not colourless bile, but an excretion from the mucous glands of the gall bladder which had accumulated after the absorption of the bile from which the calculi had been deposited. The author, in his remarks on the treatment of biliary calculi, refers to 14 cases in which he opened the gall bladder, removed the stones, and established a temporary fistula. Of the 14 patients, 13 of whom were women, 11 recovered. Two died under conditions for which the operator could not be held responsible and 1 was carried off soon after the operation by acute peritonitis. In one of these cases the number of calculi removed from the gall bladder exceeded 500. Tuffier, who is an advocate for that method of cholecystotomy in which the margins of the wound in the gall bladder are fixed to the abdominal wall, and a free external discharge of bile is established, holds that the so-called "ideal" cholecystostomy is indicated only when the gall bladder is aseptic and the biliary ducts are freely permeable. With regard to the objection brought against the ordinary operation, that it results in the formation of a troublesome biliary fistula, it is stated that the discharge of bile is very rarely so excessive as to cause anxiety. In most cases, according to the author's experience, the discharge ceases in the course of two months. A permanent biliary fistula after cholecystostomy is regarded as the result rather of inflammatory stenosis of the bile ducts than of any condition affecting directly the fistulous orifice.

Anæmia

Dr. Frederick Taylor read a paper before the recent meeting of the British Medical Association with this title. He confined his remarks to the so called primary or idiopathic forms, which are two in number—chlorosis and pernicious anæmia—and detailed the differences between chlorosis and pernicious anæmia. These differences are so great that the diseases present nothing in common except the presence of cardiac murmurs and the pallor of surface, though even here

the skin in the one case is of a greenish and in the other of a lemon-yellow hue. Chlorosis is almost entirely confined to young females, while pernicious anæmia may attack either age or sex, but is specially prone to arise in middle-aged and elderly men. In the former the nutrition is not affected, constipation is frequent, and hæmorrhages rare; in the latter there is progressive wasting and not infrequently diarrhœa and hæmorrhages. The blood of the former shows very little diminution of red corpuscles, but a marked deficiency of hæmoglobin; while in the blood of the latter the corpuscles may be reduced to 20 or 30 per cent. of the normal, but contain a greater proportion of hæmoglobin. Dr. Taylor then proceeded to discuss the causes of chlorosis and referred to the following theories of its production: disorders of menstruation, congenital narrowness of the aorta, disorders of the stomach (such as excessive acidity of the gastric secretions, low position, or proptosis of the stomach), gastric ulcer with hæmorrhage, disorders of the intestine (such as habitual constipation), and the onset of puberty aggravating certain conditions peculiar to the female sex. The great frequency of the disease in the female sex was, he considered, the overwhelming fact in its history, and each of the preceding theories had to be considered in relation to his point in the etiology of the disease. Following out the relation of the female sex to the cause of chlorosis the influence of the corset was discussed in the production of ulceration and hæmorrhage, in the displacement of the stomach (gastroptosis), and generally in the production of pressure upon the upper part of the abdomen where blood-forming organs, such as the liver and spleen, as well as the stomach, are situated. The improvement which follows in bed rather supports theories of this kind. To explain chlorosis by aggravation at puberty of natural changes, of the nature of defects, is to charge nature with imperfect adaptation of means to ends; at the same time the inferiority in corpuscles of female blood as compared with male is of interest. The influence of iron in its treatment was also considered in relation to the amount of iron contained in food as a rule and in the food of chlorotics.

Dr. Taylor spoke of pernicious anæmia, the "idiopathic anæmia" of Addison, in which disease opinions have varied from time to time as to whether its fatality, or any special condition of the blood, or the apparent absence of cause, it is to be considered its essential feature. He thought that cases in which a definite lesion such as hæmorrhage was the starting point, and yet anæmia persisted long after the cause had ceased to exist, where as difficult of explanation as entirely spontaneous cases, and as much deserved the epithet "idiopathic." He then referred to the two opposing theories of Dr. Hunter and Dr. Stockman, the former maintaining that it is a special form of disease, due to destruction of the blood in the portal vein, probably as the result of ptomines produced from micro-organisms in the bowel, in favour of which was the frequent accompaniment of intestinal dyspepsia. The latter argued that it may arise from any kind of hæmorrhage, the characteristic features being due to absorption from minute hæmorrhages in various parts of the body. There were difficulties in the way of accepting either theory as complete. Dr. Taylor then considered splenic anæmia, giving a brief summary of a case which had occurred under his care, and shortly described the characters of the disease, the anæmia of chlorotic type, the enlarged spleen, the absence of leucocytosis, the hæmorrhages and the progressive anæmia and emaciation, with death in from six months to four years. The nature of the disease was still very obscure. Banti had inclined to the view that it was a splenic form of Hodgkin's disease. It was important to recognise that it might be confounded with leukæmia unless the blood were microscopically examined. In the treatment of different forms of anæmia Dr. Taylor referred to the great value of prolonged rest in chlorosis and discussed the recent use of bone marrow or its extract in pernicious anæmia. It had not been uniformly successful. If the change in the bone marrow in pernicious anæmia was a return to an embryonic condition it was an effort to re-make blood in quantity, and the value of bone marrow supplied from outside was less apparent. The essential element in bone marrow was also not clear. The treatment of splenic anæmia by inhalation of oxygen,

which had been used with varying effects in other forms of anæmia, and the value of the operation of splenectomy in this disease contrasting very favourably with those obtained in leukæmia.

Traumatism as a Cause of Gastric Disease.

Dr. Wilhelm Ebstein discusses at great length, in the Medical Press and Circular, the effects of injuries upon the gastric mucous membrane. He first reports three cases, in which, shortly after severe muscular strain, such as the lifting of heavy weights, the patients had severe attacks of hæmatemesis, and subsequently developed the symptoms of gastric carcinoma. In one case the diagnosis was confirmed by the autopsy. Ebstein believes that the injury caused a hemorrhagic infiltration of the gastric mucous membrane or of the submucosa, and that the injured area was subsequently digested by the gastric juice. The manner in which the injury is caused is probably the sudden increase of blood pressure, exerted upon some area of diminished vascular resistance in the gastric tissue. The lesion may even lead to perforation, as occurred in the first of the reported cases. Severe hæmatemesis may, however, occur without ulceration, as in a case that Ebstein observed, and which caused death from secondary anæmia, although nothing but submucous ecchymoses were found at the autopsy. In this instance the aorta was of the chlorotic type. These cases are usually associated with considerable enlargement of the spleen, and arise under the influence of general diseased conditions, particularly as a result of local disturbances of the circulation; and such conditions may even be recognized during life, such as compression of the vena cava ascendens. Two other cases are also reported similar to this except that the hemorrhage did not lead to death. Another group of causes are general injuries to the body, such as occur in severe falls. Ebstein reports ten such cases, three of his own and seven collected from medical literature, and in all of these the symptoms of gastric ulcer developed subsequently. It is not unlikely that they are due to vasomotor disturbances, particularly as the

stomach is especially liable to such disturbances because of the tendency to rupture on the part of its vessels and the erosive qualities of the gastric juice. Among further causes of hematemesis he includes mechanical, thermic, and chemical injuries, and in illustration of the first he cites a case in which ulcer and perforation were produced by a rusty nail. Regarding the injuries caused by heat, he thinks it not impossible that liquids at a temperature of 50°C . or more may produce gastric ulcer, but only in cases that are already predisposed. In such cases, however, we are only justified in making a diagnosis of hematemesis following injury, as it is impossible to be certain that gastric ulcer is always produced.

A Case of Plural Ectopic Gestation.

Dr. P. Michinard reports a very interesting case in the July issue of the *American Journal of Obstetrics*. The patient, aged twenty-three years, had been delivered normally at term in January, 1894. Menstruation did not occur till Dec. 25th, 1895. This was the only time menstruation occurred between the data of confinement and that of the subsequent conception. In June, 1895, the abdomen was observed to have become enlarged. On Sept. 10th a careful examination was made and a correct diagnosis was arrived at. Two days later in the early morning the patient was seized with severe pain in the lower abdomen and soon became collapsed. It was at this period that Dr. Michinard saw her and by his advice she was removed into hospital for operation. Prior to the operation half a gallon of normal saline solution was injected into the median cephalic vein with the result that the pulse fell from 160 to 110. The operation appears to have presented nothing specially remarkable; a six months' fœtus (13 in. in length) was found free in the peritoneum with a large quantity of blood and clot; the ruptured tube was removed in the usual way, and after the peritoneum had been cleaned with sterilized gauze the abdomen was closed without drainage. On examination of the tube which was removed it was found to contain a second fœtus of about three months' development ($2\frac{1}{2}$ in. in length). Dr. Michinard summarises the points of

interest as follows: (1) at the time of rupture the tube contained two fœtuses each with its individual placenta; (2) one fœtus was small ($2\frac{1}{2}$ in. long) and flattened; (3) the other fœtus was normal in appearance and about 13 in. long; (4) at the time of rupture the patient had not menstruated for nearly nine months; (5) the patient never had any symptom that indicated disease of the uterus or of the appendages; (6) the tube on the opposite side was healthy in appearance; and (7) the patient at the time of writing was in the fourth month of uterine pregnancy and did not present any sign of tubal or ovarian disease. Among additional points of interest we may instance the facts that the patient was only twenty-three years of age and that the extra-uterine pregnancy followed a normal delivery at term after only a comparatively short interval.

The Presence of Arsenic in Cigarettes,

Drs. Merrill and Hale, of Westminster Hospital, London, in a report of their investigations on this subject, the following interesting results are presented. The tests were based mainly on those of Keinsch and Marsh, though these were checked by others. In some instances a dozen or more tests were made of the same brand of cigarette, to avoid possibility of error. Where the papers were of complex design or printed in more than one color, different portions of the wrapper were separately examined. "Inserts," such as pictures painted in colors, were also closely tested. Tobacco in tins was also submitted to examination. The opinion is positively given that the color of the paper affords no indication of the presence of arsenic; indeed, notwithstanding the general belief that green papers contain this drug, many of that color are free from it. In proof of this statement, Dr. Murrell's test of wrappers of vivid green, bright bluish green, pale green, and bright green cases showed no trace of arsenic; this, however, is to be contrasted with a test of the bright green wrappers of tobaccos, of cigarettes, the bright green bases of cigarettes, and the very pale bluish green wrappers of the same, which contained arsenic; still further, the bright yellow paper of tobacco, and the blue, red, yellow, and

gold wrappers of cigarettes, as also the blue, buff, white glaze, and blue satin cases, contained no arsenic. Out of seventeen series of different kinds of cigarettes and tobacco, arsenic was present in the labels of six, or more than a third. The arsenic in these cases was present in such large quantities that no difficulty was experienced in demonstrating the fact. The report closes with the conclusion that the presence of arsenic in these wrappers of cigarettes must be attended with considerable risk, as the coloring matter, especially when moist, rubs off on to the fingers, from which they are transferred to the cigarette. In most cases in this industry the cases and papers are spread by girls, who must therefore of necessity absorb a good deal of the arsenic. The danger is clearly both to the consumer and manufacturer. Moreover, the presence of arsenic is not at all confined to the cheaper brands, as it occurs abundantly in the higher priced packets. The report also suggests that, as the inhalation of arsenious acid even in minute quantities for a considerable time produces cough, hæmoptysis, expectoration, and loss of flesh, which are readily mistaken for phthisis, the advantage of accurate knowledge concerning this subject is most apparent.

Some Considerations Regarding the Treatment of Acute Otitis Media.

In a paper presented before the Northern Tri-State Medical Association, on July 21, 1896, Dr. Albert Bulson, Jr., makes a plea for more active consideration of what physicians and laity popularly term "ear ache," a manifestation which frequently terminates in serious inflammation of the middle ear, with resulting impairment of the function of hearing, and possible loss of life through involvement of the cranial contents. He spoke particularly of the "ear ache" of childhood which parents and even physicians often consider of minor importance, and drew attention particularly to the evil effects of after years which may be directly traced to the ear aches of childhood. He stated that the frequently recurring acute and subacute attacks of catarrhal inflammation of the middle ear

during childhood lead often to adhesions and permanent retraction of the drum head, and in some cases to secondary involvement of the internal ear.

The use of the popular "ear ache" mixtures such as laudanum and sweet oil, warm goose oil, lard, glycerine, onions, etc., was vigorously condemned from the fact that such applications possess no therapeutic value, and usually prolong the duration of the disease, as well as offer a decided obstacle to satisfactory inspection of the parts and certain diagnosis of the trouble.

Treatment should begin early and if begun early an acute inflammation of the middle ear rarely results in the patient's death, or seriously impair the hearing of the affected ear, or passes into a really chronic purulent inflammation.

The author concludes as follows:

1. Consider "ear ache" as a warning note of danger to the patient, both as respects function of hearing and life, and carefully inspect the visible parts implicated in the inflammation.
2. Avoid opiates which oftentimes but mask the symptoms, and if within the first few hours no relief from pain results from hot applications and local depletion perform paracentesis whether bulging of the membrane is present or not.
3. Incise the drum membrane at once if bulging is detected indicating early perforation, as it is important to, if possible, control the character, extent and location of the opening in the drum membrane in order to limit destructive changes.
4. With the appearance of discharge, begin the process of cleansing, adopting nothing more than warm detergent and non-irritating antiseptic solutions, and using them sufficiently often to keep the parts free from collections of mucous or pus.
5. Keep the naso-pharynx free of discharges by detergent sprays, and cautiously use politzer inflation to assist in removing discharges from the middle ear, as well as to aid in preventing depression of the healing drum membrane and possible adhesion.
6. To secure the best possible results which are always desirable, and due both patient and physician, persistently follow treatment until all discharges have ceased and the perforation thoroughly closed.

Myxœdema Treated with Dessicated Thyroid.

At the annual meeting of the N. H. Medical Society, Dr. G. McGregor, of Littleton, reported a case of Myxœdema with illustrations, successfully treated with dessicated thyroid.

The patient was 40 years of age, American, married 12 years, mother of a bright boy 6 years old.

About 7 years before the patient had a "fibroid attack" lasting several weeks, which, in the light of subsequent events, seemed to be the prodromal symptom of the disease.

With an insidious beginning the skin soon became dark, dry and tawny; œdema of lids, half closing the eyes; forehead thickened, face broadened, nose enlarged, lips everted and blue; neck thickened and shortened, supraclavicular regions padded, hands and fingers very large, with an overgrown trunk.

Skin of entire body perforaceous, no perspiration, always chilly, hair coarse and brittle; menses abnormally frequent and excessive.

Mental habitude; slow in her movements and, withal, a repulsive looking woman.

Something like a year and a half previously, the writer saw her at a farm house, and was so impressed with her physiognomy that what at first was an interesting search, became later a determined effort to reach a positive diagnosis. This was a gradual growth attained by exclusion, culminating on listening to a paper read at the Marine State Society in 1895.

Once a diagnosis was made the treatment was plain, indeed, so simple that the case would no longer have been interesting except as corroborative of the diagnosis and observation of such marvellous changes.

She was put upon Armour's Dessicated Thyroid Tablets, and in three weeks was nearly restored to her normal condition, physically and mentally.

During the interium between the treatment of this case and the preparation of the paper, three cases of goitre were also treated with thyroids. One case could not continue on account of faintness and trembling of limbs with reduction of weight several pounds.

The two other cases were mother and infant, both of whom were markedly benefited, possibly a cure of the infant.*

Like results following the exhibition of the same remedies, tend to confirm the claims of some authorss that myxœdema and goiter are sequelar of functionless thyroids.

Antistreptococcic Serum.

Schleicher records in the *Lancet* a case in which Marmorek's antistreptococcic serum was used with apparent success. The patient was a woman of 29, whose illness began with bronchitis, and a temperature ranging from 100.4° to 103.2° . There was violent cough both by day and night, with abundant frothy muco-purulent expectoration, showing little clots. On the fifteenth morning the temperature rose to 104° , and signs of broncho-pneumonia appeared in both lungs; the sputum contained numerous pus corpuscles but no tubercle bacilli or blood. A week later the physical signs were unchanged, but the patient was very weak and wasted, and appeared to be in imminent danger; the temperature fell at night but rose every morning to 102° , 104° . On the twenty-first day of the disease 20 c.cm. of antistreptococcic serum were injected, followed twenty-four hours later by another 10 c.cm. The forearm, which was the seat of injection, developed an erythema, which spread over the entire arm but disappeared in two days. The patient become much better, the temperature falling to between 99.6° and 100.8° , and the appetite to same extent returning. Eleven days after the injection a general eruption broke out attended with joint pains, and the diagnosis was made of peliosis rheumatica. Three days later there was a sudden rise of temperature to 105.8° , associated with trsmus, loss of power in the lower limbs, and sense of impending death. This condition lasted for three days, when it terminated by crisis, associated with copious night sweating. The eruption cleared up, as also did the lung condition; the appetite returned, and though convalescence was slow the patient was perfectly well a month later. Schleicher

*Did not see babe after prescribing, but was told he was cured.

considers the course of events to indicate that the eruption was not peliosis but an effect of the serum, comparable to the similar results of diphtheria antioxin. He also holds that the crisis was not spontaneous, but was also to be attributed to action of the serum. With regard to this action he regards it as having been distinctly beneficial in his case, which would, therefore, indicate an extensive trial of the remedy.

Hygienic Principles in the Prevention of Ear Diseases.*

The prevalence of acute and chronic nasopharyngeal affections under local climatic conditions of rapidly varying temperature and humidity, the frequency and danger of complicating diseases of the organ of hearing, and the common neglect of hygienic measures, which are, for the greater part, simple and effective, offer sufficient reason for my submitting a few remarks on the subject.

The commonest path of aural infection is from the nasopharynx through the Eustachian tube. Under normal conditions, the reflex action of swallowing causes the renewal of air in the tympanic cavity. The physiological ventilation may become a source of danger, to which are added other and more violent reflex movements, such as coughing, sneezing, or vomiting. These reflexes cause a sudden rise of air-pressure, which, though but momentary, is strong enough to force into the middle ear from the nasopharynx, mucus and any microorganisms that may be present. As evidence of this, the frequency of middle-ear complications in epidemics of acute and subacute nasopharyngeal affections may be cited; but without any mechanical assistance, pathogenic organisms may traverse the tube and produce the tympanic complications not unfrequently observed in pneumonia, typhoid, scarlet fever, and other infectious diseases.

Less frequently, but no less certainly, the blood carries the agent of infection to the affected organ of hearing, or inflammatory products may be transported and become lodged in the terminal blood-vessels of the middle ear, as is not unfre-

quently the case in septic endocarditis and in pyemic conditions. Besides these internal paths, the ear may become affected from without, as it most frequently is in disease of the external ear, and as complications of deeper parts. Injuries and inflammatory processes of the auricle and meatus may affect only the external ear and the adjacent structures, or may cause general infection; again, the inflammatory process often extends to the barrier between external and middle ear, with destruction of the drum membrane and rapid development of middle-ear inflammation. Even without perforation of the tympanic membrane, the pathogenic process may penetrate, by means of blood and lymph channels, to the deeper structures.

A knowledge of the methods of aural infection should guide us in our therapeutic and prophylactic measures. First and foremost is the importance of a proper hygiene of the nasopharynx, in health as well as in disease. A perfunctory brushing of the teeth on rising in the morning, and so called gargling with a few drops of a mouth-wash are considered by many sufficient for the subsequent twenty-four hours, and the products of fermentation and decay, with the microorganisms, are left undisturbed for a whole day. Besides this, the conditions for decomposition are made more favorable by the conditions of the mouth and nasopharynx during sleep. The rational deduction is that the most careful cleansing of teeth should take place at night and again on rising, for in spite of all such measures, the buccal cavity will be found full of microorganisms in the morning, and perhaps a less careful toilet of the mouth should follow each meal. If these simple, hygienic measures were systematically and energetically applied, especially in childhood, we might hope for fewer complaints of foul breath, weak stomach, or decayed teeth; not only this, but the mucous membrane of the mouth and pharynx would become toned and strengthened against many infectious diseases. Where there is a tendency to catarrh or sore throat, antiseptic solutions may with advantage be substituted for pure water. In addition to these local measures, fresh air, cold baths, pulmonary hygiene, and breathing exercises.

*P. H. Fridenberg, Medical News, Aug. 8, '96, Abstract.

The presence of local or general disease increases our responsibility and the necessity of rational hygienic measures. Nasal or pharyngeal catarrh, whether idiopathic or symptomatic of measles or scarlet fever, is frequently complicated by acute middle-ear affections. The disease brings with it the necessity of freeing the nasal cavity at frequent intervals, and the simple blowing of the nose, if violently or carelessly done, as is usually the case, may be a source of danger. It should be done as seldom as possible, as violent blowing only adds to the existing irritation and congestion. If this is not sufficient, the mucus must be made less consistent and removed by an alkaline douche. Both nostrils should never be closed at once, and no hairpin or similar utensil should be used. We must be on our guard in the case of infants and little children, and consider at all times the possibility of ear complications when restless sleep, peevishness, and crying might suggest intestinal parasites, colic, teething, or what not. Frequently a discharge from the ear is our first intimation of the real state affairs. In such cases, as in the case of apathetic or comatose patients, in typhoid, pneumonia, meningitis, and similar diseases, the ear-drum should be frequently inspected. In chronic affections of the nasopharynx, aural complications are so frequent as to be rule. Chronic hypertrophic catarrh, with adenoid vegetation in the pharyngeal vault, is notable in this respect. The local action of adenoid hypertrophies may cause a direct affection of the Eustachian tube by occlusion of the pharyngeal ostium and consequent retraction of the drum by rarification of air in the tympanic cavity, or their presence may cause repeated attacks of catarrh, which sooner or later extend to the middle ear. The breathing is affected markedly, and hearing not infrequently diminished. Direct application to the nasal passages of weak nitrate of silver solutions or of iodine-glycerin, five to ten per cent., act well in almost all cases, when used at an early stage. Two or three days should elapse between each application.

The use of a nasal douche should be governed by a few simple, but stringent rules; the bulb of the fountain syringe, should be directed horizontally backward, not upward, the bag hung not more than

one foot above the nasal passage. The head should be inclined forward slightly, with the mouth open, and the douche fluid slightly warmed. The nasal douche-cup or spoon is even better than a fountain syringe, or the fluid may simply be snuffed up from the palm of the hand.

A consideration of all the possible causes of aural affections brings us finally to the communication from without through the external auditory meatus. Inflammation of the auricle or meatus may be propagated directly by extension or by transportation in blood or lymph-channels. The custom of piercing the lobule for wearing of earrings has been responsible for many cases of this nature. A greater menace lies in the careless or incorrect cleaning of the meatus. The majority of instruments used for this purpose—ear-spoons of metal, rubber, ivory, or bone—are of doubtful utility, or absolutely dangerous. Oil, glycerin, and other substances of a similar nature are inappropriate, on account of their tendency to become rancid. The most rational method of cleaning, by using a small tuft of absorbent cotton, tightly wound about a blunt and smooth wooden tooth-pick, the end being left loose and fluffy. The cotton may be lightly dipped in soap water or moistened with a drop of ether. Another source of serious inflammation of the ear is the presence of foreign bodies in the external meatus, and more particularly unskilful or violent attempts at their removal. Instruments are never to be used in these cases, especially when the foreign body is hard or brittle, as they invariably fail to grasp and push the offending object still deeper into the ear. Our sovereign remedy here consists in syringing, and is effectual in nearly all cases, unless the foreign body is very voluminous or has entered the ear with great force. Under these conditions extraction under a general anesthetic may be our only expedient. Injuries of the ear not infrequently produce a rupture of the drum; here, too, the original lesion may be less dangerous than misguided therapeutic efforts. All washing, syringing, or instillations are contraindicated. If the rupture can be seen, a loose tampon of absorbent cotton is all that is needed. In case there has been free hemorrhage and our view is obstructed, the blood-clot may be gen-

tly wiped away with cotton on a holder. The patent should be cautioned to avoid all procedures which would cause a rise of air-pressure in the tympanic cavity, and especially to use no force in blowing the nose. The use of syringes is unequivocally condemned. Prompt healing will generally take place under the aseptic blood-clot, if this be left undisturbed. The warning against syringing must be especially marked in case of serous discharge, where traumatic communication with the cranial cavity may reasonably be suspected.

Another source of danger, although of a less serious nature, is the common tendency to alleviate toothache or facial neuralgia by the use of hot oil, pledgets of cotton dipped in chloroform, oil of cloves, or other counter-irritants placed in the auditory canal.

In health we need also guard against the mechanical injury of the heavy surf at our seaside baths. Complaint of fullness and pressure in the ear after bathing, with diminution in hearing, is usually due to the swelling of cerumen by the action of water.

Serum Treatment of Diphtheria.

Dr. Zuppinger treated during the year 1895 one hundred and sixty cases, of which forty died. The cases were divided as follows:

Pharyngeal type, seventy-two treated, eight died; pharyngo-nasal type, thirty-two treated, thirteen died, of whom four were moribund when first seen; pharyngo-laryngeal type, fifty-six treated, nineteen died, of whom five were moribund. A marked decrease in mortality occurred as the year progressed, being forty-one per cent., and sixteen per cent., in the first, second, and third periods of four months respectively. In January, seven of thirteen children died; in November, none of fourteen. The doses employed were high, 2000 to 3000 A. U. in the first twelve hours and 1000 to 2000 more if no beneficial effect was noted in the first instance. No marked sudden result was observed. In some cases the fever diminished, in others it rose, in others it was unaffected. Albuminuria was not affected. Slight paresis occurred in these cases, but no post-diphtheritic paralysis. In no instance did croupous symptoms

develop after an injection, and to this degree the extension of the membrane for matation was hindered, but in several cases, particularly of the nasal type, the membrane persisted for days. In twelve cases laryngeal stenosis subsided after the injection without operation. This was an exceedingly rare occurrence in earlier years. The intubation period in the other cases was much shorter than in the ante-serum period. Cardiac paralysis, however, was more frequent in severe toxic cases than in previous years. In seven septic cases the serum was wholly without effect. In three it failed to prevent the formation of membrane in the stomach. The percentage of death, according to the day upon treatment was commenced, is as follows: of those injected on the first day, ten per cent.; on the second, fifteen per cent.; on the third, twenty-eight per cent.; later, thirty-one per cent. One hundred and twenty-two cases were investigated bacteriologically, forty-five being almost pure cultures, forty-four mixed forms, and thirty-three not showing Löffler's bacillus. The mortality of the first group was thirty-seven per cent.; of the second, thirteen per cent.; and of the third, twenty-one per cent. The thirty-four autopsies showed that the commonest causes of death were complications in the lungs and bronchi and degeneration of the heart and kidneys. Of twenty-nine children that had been exposed to contagion and were inoculated prophylactically, one was attacked, but it is likely that the disease had already commenced. In conclusion, Zuppinger does not hesitate to declare Behring's serum by far the best treatment yet discovered for diphtheria.

Sanmetto in Affections of the Genito-Urinary Tract.

Dr. Robt. Park, M. D., L. F. P. S. Glasg., L. S. A., M. R. C. V. S., &c., 288 Argyle St., Glasgow, Scotland, says: "I find in Sanmetto an extremely elegant preparation, and one very effectual in remedying those medical affections of the genito-urinary tract for which it is especially designed. I was particularly pleased with its successful action in a case of irritation of the bladder neck, and frequent micturition and incontinence in a young adolescent female."

The Future of Railway Surgery.

Clark Bell, Esq., president Medico-Legal congress, of New York read before the National Association of Railway Surgeons, a paper with the above title. He said: Whatever may be said or thought of the claim that medicine was not an exact science, by its enemies, its devotees, or its friends; no one can, in the light of the wonderful progress made in modern surgery, in the single generation since the American Civil War, deny or question even the scientific precision now attained by its great leaders and exponents in the practice of surgery.

The steps by which the science of surgery has advanced in our day and generation have been grand and stately, as they have been effective; and as valuable to mankind, as they have been wonderful—yes, almost marvelous in results.

In 1861 a gun-shot wound of the abdomen was regarded as almost necessarily fatal; to-day, as illumined and illustrated by surgeons Nicholas Senn, J. N. Hall and other masters of this branch of surgery, an explanation would be rightfully and lawfully demanded of the surgeon who lost such a case, of the reasons of his failure.

In abdominal surgery, especially in women, in my boyhood the ablest and most successful surgeon in western New York, where I then resided, told me that he frankly stated to his patients, before operation, that the risk of life or death was almost even in cases of ovariectomy.

See that great army of suffering women of the past, that with a courage higher than that of the soldier who faces death in battle, because without its stimulating excitement, has faced and met death under the knife of the surgeon, who was then ignorant of what is now universal knowledge in the practice of the art.

We lament the ignorance and superstition which swelled the vast army beyond the styx; of widows burned on the funeral pyres of their dead husbands; but is that concourse, vast as it may seem, greater than the mothers and daughters of our forefathers, who thus perished for the want of that light in surgery, whose rays are to-day as effulgent as the sun?

I remember Mr. Lawson Tait, announcing in the British Medical Journal, not a great many years ago, that brilliant

record of six hundred cases of abdominal surgery in women, without the loss of a single life; and to day, the properly equipped and skilful surgeon, who lost such a case by his own fault, could be made to respond in damages, if used for malpractice, as all now agree he should be made responsible.

Electricity has thrown upon surgery a brilliant, a marvellous; a penetrating and a wonderful light, of incomparable value, and incalculable worth.

With its magic lantern, it has illumined much of the human body to the eye of the surgeon, hitherto veiled, dark, and inaccessible, while the new Röntgen ray, or its recently discovered properties, opens the outer door of a vestibule to a yet unexplored gallery of human knowledge, in surgical science, as amazing in its results, even thus far reached, as it is counter to the generally hitherto accepted views of man. We are facing some marvellously strange facts just now in physics, when we find a light that passes through solids and metals at will; but which, with great difficulty, penetrates glass, through which the light of the sun passes readily, and we are considering whether we shall recast our definitions of the word "opaque" as applied to matter, and are searching for that unknown mysterious, yet silent force, that stronger than gravity and over-powering, and in spite of it, makes the shoot of grain grow and stand erect, and advance upward like the tree, which under the nurturing hand of nature produces, when undisturbed by extraneous influences, some of the most beautiful and graceful objects in the created universe.

All the sciences act as hand maidens to surgery, and pour into her lap the wealth of their discoveries.

Chemistry, which stands as a base and corner stone for the whole structure of the physical sciences, the prolific mother of the wealth of the whole world, stands to surgery, as he who rolled away the stone from the sepulchre two thousand years ago, opening the door through which the light comes forth to glorify and illumine, and by which we see that before hidden and unknown.

It is doubtful if there is anything that really exists, which can properly be called new. Whatever is always was and must be old and from the beginning.

Chemistry knows all. To her nothing is new. She simply, now and then, withdraws the veil which obscures the imperfect human vision and reveals to her favorites, little by little, that which she may have before blazoned at noonday, in the pre-historic times, to her favored priests who then kept alive the sacred fires upon the altars within her temples.

She has her favorites and she lifts a corner of the curtain to such superb students as Edison, Tesla and Röntgen, from which come glances and flashes of a light incomparable and brighter than the noon-day sun, to teach us how limited is the sum of present human knowledge, of the great truths of nature, and how little the wisest man does really know of what may be some day attainable and general human knowledge.

Truths are truths, entirely independent of human appreciation or perception, and the limitations of human knowledge do not offset, change, or even modify them.

The knowledge of a few of the mysterious of electricity furnished to mankind by the wizard Edison, were truths before, and would have been truths had Edison died in his boyhood; and the quality of the cathode ray was neither changed nor modified by the genius of Röntgen in its discovery.

The microscope, the spectroscope, the marvels of photography, the ripe labors of the bacteriologist, the whole field of advance in antiseptic surgery, the wonderful inventive genius of man in the construction and adaption of instruments and appliances for surgical work, electricity as a force in the delicate mechanics of surgery, and notably of the saw, with its almost incredible velocity, so admirable in delicate operations upon bone and cartilage, and of producing at will, and in exact locations, intense heat, not to enumerate many aids now at the ready surgeon's hands, place the surgeon of today on an immeasurable height above even the surgeon of 1861.

The railway surgeon then enters a field quite new in the domain of surgery in the past, but he is armed *cap a pie* and he has a great future.

The first railway was built after the close of the first quarter of our century. It was a slow growth at first, but has become now, upon the American continent especially, the foremost factor in develop-

ment and in the advancing march of civilization. Its surgery has a field wholly its own. It represents and protects an enormous class, whom it treats in cases of sickness or accident, and whom it has to regard as well, in protecting against accident, and in guarding so far as possible, by precautionary measures, the employees of the railways and the great public who travel upon them.

The mission of railway surgery should be:

1. To arrive at the highest stage of excellence in ability to treat the injury.
2. To establish the Railway Hospital as a fixed system in railway service, the better to execute the first great duty, and to give to the most exposed class, the employee, the very highest and best surgical service combined with the greatest economy to both railway and sufferer, be he employee or passenger.
3. Prevention of injury upon railway as far as possible.
4. Improved sanitary measures in the interest of the general public in the transportation of passengers, to prevent infection or the spread of contagious diseases.

Poisoning by Chlorate of Potash.

Feller relates a case in the London Lancet of a nervous but otherwise healthy woman suffering from heartburn, took by mistake for bicarbonate of soda, a heaped teaspoonful of chlorate of potash, and again half an hour later the same quantity. She was soon seized with violent vomiting and severe abdominal pains, especially about the kidneys, followed by strangury and anuria and cyanosis of the extremities. Her skin was cold; her pulse almost imperceptible; the heart's action irregular; respiration slow; but her intelligence was unaffected. Under artificial warmth and cardiac restoratives the pulse improved, and the next day she passed a small quantity of highly albuminous blood urine after severe nephritic colic. She could retain nothing on her stomach, but was given nutrient enemata, and on the third day the urine, though still scanty and passed with pain, was less albuminous, but the heart's action remained irregular. On the eleventh day, against the doctor's orders, she got out of bed, fell down insensible and very soon expired. No necropsy was permitted.

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SEEMS TO HOLD FIRST PLACE IN THE ESTIMATION OF MEDICAL OBSERVERS.—*"The Feeding of Infants," in the New York Medical Record.*

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It has acquired a high reputation, and is adapted to children as well as adults—in fact, we have used it successfully with children from birth.—*The Post Graduate Journal.*

The results attending its use have been very satisfactory.— * * * M.D., in *New York State Medical Reporter.*

Especially valuable in fevers, and often the only food the stomach will tolerate in many gastric and enteric diseases.—*Dominion Medical Monthly, Toronto.*

IMPERIAL GRANUM has stood the test of many years, while many competing foods have come and gone, and have been missed by few or none. But it will have satisfactory results in nutrition far into the future, because it is based on merit and proven success in the past. *The Pharmaceutical Record, N. Y.*

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Splenectomy.

A. A. Lendon in *Australia Medical Journal* reports what he claims to be the first case in which splenectomy has been performed successfully in Australia. Two other splenectomies have been recently reported in Australia: one performed by A. G. Hamilton in 1885 for leucocythæmia, the patient dying of shock in 24 hours; the other by Gardner for hypertrophy secondary to cirrhosis of the liver, the patient dying on the twenty-first day. Lendon's patient was a woman, aged 21, suffering from wandering and hypertrophied spleen. She was very anæmic, and had had "indolent" ulcers of the legs for some years. On palpating the abdomen a large tumour was immediately felt; it had a fluctuant feel, was elongated vertically, and was very movable laterally, but seem to occupy the right side of the abdomen more than the left; no notch or edge could be felt; its lower edge reached to the true pelvis. The diagnosis seemed to rest between a tumour springing from the pelvic organs, a renal tumour, a hydatid of the omentum, and a chronic abscess. At the operation the tumour was recognised as splenic by its blue slate colour; there were no adhesions; three notches could be felt on the left side, indicating that the organ had become rotated half a turn. The incision was enlarged to 5 inches, and the spleen easily delivered from the abdominal cavity. The pedicle was of such a length that the operation could be completed entirely outside the abdominal cavity, but beyond the splenic vessels it consisted of nothing but a little fat, enclosed in the flimsy thin layers of gastro-splenic omentum. The main artery was first tied with No. 3 silk, then a pedicle was made nearer the spleen with stout silk; clamps were applied to the splenic side of the ligature, and the organ cut away; for additional safety, other fine ligatures were applied to the stump, which was then dropped back into the abdomen, and the wound closed and dressed in the usual way. The spleen and the blood contained in it weighed $40\frac{1}{2}$ ozs., afterwards 11 ozs. by weight of blood drained out of it. The viscus was quite solid, and sections showed under the microscope that there was some degree, not a great degree, of fibrous overgrowth. Re-

covery was interrupted by febrile disturbance, but was finally complete. Some six weeks after the operation an examination of the blood showed 486 red corpuscles to 1 white, and 4,860,000 corpuscles to the cubic millimetre, the normal being estimated at 5,000,000. One singular feature in the patient's case is the family history. One sister (deceased) was known to have had an enlarged spleen, although she does not appear to have died from splenic disease; one brother has an enlarged spleen, likewise a sister, whose child is also affected in the same way. Lendon adds that he is giving his patient bone marrow with the view of counteracting the cachectic state which is regarded by some as certain to become developed in patients who have had their spleen removed.

Neurasthenic Angina Pectoris.

Rendu describes in the *Edinburgh Medical Journal* the case of a man, aged 40, of robust appearance, notwithstanding he had suffered from typhoid, malaria, and yellow fever, but whose health for the last five years had been good, was attacked by influenza. After this he began to suffer from peculiar attacks consisting in a kind of crisis arising in the little finger, extending up the arm, and finally becoming more marked, accompanied by feeling of oppression and agony, with, on some occasions, syncope. After a short period in hospital these attacks became somewhat better, but returned to recur daily. There were no physical signs of either heart or lung disease. Rendu considers the diagnosis in this case one for reflection as to whether it were a case of true angina pectoris or not. In the case in question as there were no signs of cardiac affection, as angina is uncommon up to the age of 40, and as the pain began peripherally, the author was rather inclined to deny its being true angina pectoris. The previous history of influenza would also, he considers, be in favour of the less grave condition; and as the patient also suffered from headache, sleeplessness, and dyspepsia, the conclusion came to was that the case was simply neurasthenic. On these grounds the man was treated, with the result that the attacks rapidly subsided, and the general health was restored.

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Medicine, Theology and Finance.

Medical men are often placed in a position of difficulty in regard to charges for professional services to clergymen. Many clergymen expect gratuitous attendance, and many doctors decline fees for services rendered to them unless they are in a good position.

Dealing with this question in a paper read before a local medical society, Dr. H. Campbell Black, of Glasgow, gave utterance to sentiments which will meet with the approval of most doctors. He said: My distinct impression is that poverty and suffering never appeal in vain to the worthy disciple of the old man of Cos; but I distinctly fail to see why, because a man is a clergyman, he is entitled to sponge, particularly on a young and poor practitioner of medicine. In my opinion—I submit it with all humility, especially in the city of Glasgow, the clergyman in receipt of over £1,000 per annum is grossly overpaid; and as a rule clergymen are the most pampered members of the community. Every now and again do I notice the presentation of £400 or £500 to some clergyman, especially one with his comfortable £1,000 per annum, to enable him to go and take a four or five months holiday, after a series of fierce encounters with Beelzebub, or of his having a pecuniary jubilee or semi-jubilee. When did you ever hear of a poor hard-wrought doctor ever receiving a £5 note from the public if run down in health? Of course, the money is ostensibly given to our friend, the parson, to strengthen the faith (and if anything can do this, money will) by a run to the "Holy Land."—*Medical Times and Hospital Gazette*.

The Southwestern Medical and Surgical Reporter has removed from Tyler to Fort Worth, Texas. The Reporter is one of the best Monthly Medical Journals that comes to our office, and we wish it continued success at its new home.

It is claimed that hypertrophy of the left ventricle occurs in normal pregnancy, and that a certain amount of dilatation of all the chambers of the heart also occurs.

Indigestion--Eructations--Dyspnœa.

Dr. Alfred E. Meyer says he has been using "Maltine with Wine of Pepsin" at the New York Polyclinic, and also at the West Side German Dispensary in his Gynecological Clinic with signal advantage with women who are suffering from chronic indigestion, and he also gave it a trial in his private practice. One patient, a lady who had for years had frequent attacks of indigestion, received so much benefit from its use that he decided to report the case.

The attacks usually came on about an hour after eating, the symptoms being great distention of the abdomen and a feeling of soreness and dyspnœa. The attack usually lasted from one to two hours. She had been put on various methods of treatment, not only on different preparations of pepsin and pancreatin, but also on dietetic treatment, without any marked or permanent benefit. After beginning the use of "Maltine with Wine of Pepsin"—a small wine-glass full after each meal—she did not have another attack. The remedy was continued and there appears to have been an entire mitigation of the disagreeable condition under which she had labored for so long, and this too without any special reference as to change of diet. It was noticed that in taking a dose at the beginning of the treatment there were repeated eructations of gas and the uncomfortable symptoms were relieved in a very short time.

Dr. Meyer says he thinks that the combination of "Maltine with Wine of Pepsin" is a very happy one.

Dipsomania may be occasioned by traumatism. The *Presse Medicale* (Med. Cent.) reports a case occurring in an officer who was thrown from his horse and dragged some distance, injuring his head and wounding the nucha quite extensively. An excessive thirst for alcohol developed. He also became erotic, and manifested a suicidal tendency.

Dr. Albert Hoover, two months ago, was lying upon a couch, when one of his children playfully walked over him, but, making a misstep, trod upon his testicles. The bruise led to abscess, pyæmia and death.

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ANTILITHIC—A Solvent of Uric Acid.

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Half a teaspoonful in water three times a day, either before, after, or between meals.

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It is positively indicated, and established by the severest medical tests, to be permanently effective in Albuminuria, Nerve Waste, or Neurasthenia, all Glandular Disorders, Impotence, General Debility, Headache, Melancholia, Dizziness, Alcoholic Neuroses, and all troubles dependent upon arrests of function in the trophic or Nutritive Nerve centres, **AND ESPECIALLY RELIABLE AS A PAINLESS CURE OF THE**

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representing as it does the full therapeutic power of inorganic therapy as known in the organism will be fully met by MELACHOL.

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PHYSICIANS will be furnished full size bottle of each free on payment of express charges.

Please name journal in which this appears.

ALTA PHARMACAL COMPANY,

ST. LOUIS, MO.

Intraligamentary Ovarian Cysts.

Brigidi says in the *Edinburgh Medical Journal* that a large number of ovarian cysts are derived from the parovarium, from the body of Rosenmüller or from Gartner's ducts; but such cysts are small, the largest according to Virchow not bigger than a hazel nut; their walls are thin and transparent, enclosing a limpid serosity. Cysts which originate from an ovary, normally situated or ectopic, or from an ovarian germ strayed into the broad ligament, have walls of fibrous tissue lined with a polymorphic epithelium, cylindrical or ciliated, and their contents are thicker, mucous, or colloid, and often bloody. Some authors look upon all intraligamentary cysts as parovarian; others, with more justice, attribute the origin of ovarian cysts of the broad ligament to Pflüger's follicles; others deem them due to supplementary ovaries, and Vautrin and terraillon have shown that ovarian germs, or supplementary ovaries, may be included within the folds of the mesovarium or other parts of the broad ligament; finally it appears from the cases reported by Fichel that the ovaries may lie entirely behind the peritoneum. Ovaries so hidden, if they have not given rise to solid or cystic tumours, often escape notice when the abdomen is opened. In a recent case Brigidi, after declaring the ovaries absent, found a small body formed of cysts in a fibrous capsule behind the pavilion of the tube on the right side, but on the left could discover no trace of the gland. There was, in fact, subperitoneal ectopia of the ovary on one side and complete atrophy or aplasia on the other. Such anomalies often from the basis of pathological changes leading the cystic transformation, or even to epithelial tumours, adenoma or carcinoma, associated with cysts. In such cases also intraligamentary cysts may grow to an immense size, as in Meredith and Kaltembach's cases and that of Hegar, in which the tumour detached the peritoneum as far as the diaphragm. In another woman Brigidi found both ovaries superitoneal and cystic, and the left one was the seat of metastasis secondary to cervical carcinoma. A similar case was reported not long ago by Sangalli. The predisposition to cystic degeneration in the dis-

placed organs may depend on changes interfering with their proper nutrition or with normal ovulation, or on the obstacles offered by the peritoneum to the rupture of the Graafian follicles and the passage of the ova into the oviducts. When with intraligamentary ovarian cysts are often barren; if both ovaries are ectopic, they can hardly be otherwise, and they may have two large cystic tumours or a large and a small one, or there may be cyst on one side and on the other a rudimentary ovary hidden by the peritoneum, or no ovary at all; but if only one of the glands be subperitoneal, the woman have children, and should both ovaries become cystic, the one will be of the ordinary character and the other intraligamentary. When detached ovarian germs or supernumerary ovaries form intraligamentary cysts, the true ovaries may remain normal or become cystic; two tumours may form on the same side, may fuse, and give the impression of a true ovarian cyst extending between, and separating, the folds of the broad ligament; or a normal ovary may be pushed upwards by the growth of an intraligamentary cyst on the same side, as seems to have been the condition in Chiara's case reported by Fasola.

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In UNGUENTINE the irritating properties of Alum are eliminated.

Prof. H. W. Paige says 10 grains of Alum can only be used in an ounce of ointment, more will cause irritation. Unguentine contains more than 30 grains to the ounce.

Tait, Sayre, Erichson, and all authors of modern surgery state that extensive burns and lacerations always leave Eschar Tissue. We have hundreds of testimonials which prove that UNGUENTINE heals such injuries without the slightest disfiguration.

There is not a surgical dressing, either wet or dry, on the market to-day that can equal UNGUENTINE for general use, and there is no surgical dressing from which can be obtained as good and satisfactory results.

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Damiana,.....	30 grs.	Coca.....	20 grs.
Ac. Phos. Dil.....	1 fl. drachm.	Saw Palmetto.....	20 grs.
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Dose—One to two teaspoonfuls three or four times a day.

A VITALIZING AND DIFFUSIBLE

STIMULANT AND TONIC,

exerting special influence upon the

Genito-Urinary Organs.

Useful in promoting growth of the mammæ and overcoming ovarian pain.

A POWERFUL APHRODISIAC.

Samples to Physicians.

REPORTS OF CASES INVITED,

The Virginia Pharmacal Co.
RICHMOND, VA.

Pulmonary Abscess Treated by Surgical Operation.

Quincke (British Medical Journal) has tabulated and analyzed fifty-four cases of pulmonary abscess treated by surgical operation. These cases, seventeen of which were treated by the author, are arranged in three groups: the first of acute abscesses, both simple and gangrenous; the second of chronic abscess and putrid bronchiectasis; and the last of putrid suppuration caused by a foreign body in the lung. In a large proportion of the fifty-four cases (eighty-three per cent.) the inferior lobe of the lung was the seat of the disease. Of the total number of patients, twenty recovered and twenty died; in the remaining fourteen cases the surgical treatment either failed altogether or gave but imperfect results. The author makes out from the collection of records that, while the mortality from operative interference is almost equal in acute and chronic cases, the percentage of complete recoveries is higher by about forty-five in the former than in the latter. It is concluded that the operative treatment of acute pulmonary abscess will be attended with complete success in two of every three cases. The prognosis of such treatment in cases of chronic, and especially putrid, abscess, is much less favorable. The author believes, however, that in future better results may be attained by earlier intervention. Surgical treatment, he holds, is indicated in cases of acute abscess which show no tendency to spontaneous healing. The prospects of an operation in such cases are better than those of expectant treatment. If this suggestion be generally followed, chronic pulmonary abscess with secondary bronchiectasis will, it is thought, be observed less frequently. Notwithstanding the less favorable prospects of operation in cases of chronic pulmonary abscess and sacculated bronchiectasis, such treatment is here recommended for these morbid conditions with the view of protecting against acute secondary inflammation the portion of lung still remaining sound. In cases of multiple bronchiectasis, although *a priori* a good result could hardly be expected from surgical operation, still, the author thinks, improvement may be brought about by such

treatment. As such a condition constantly threatens fresh and fatal mischief, an operation, though not clearly indicated, need not be regarded as unjustifiable.

In discussing the diagnosis of pulmonary abscess the author regards as important indications the purulent nature of the expectoration and the presence of the discharge of minute portions of broken down lung tissue. The quantity of expectorated fluid, he points out, affords no sure indication of the size of the cavity.

In considering the diagnosis of the seat of a supposed pulmonary abscess, he states that when on general grounds the existence of such a cavity is assumed, and a localized area of dullness exists without any distinct local symptoms of suppuration, this area should be selected as the object of the surgical attack. If not the precise situation of the disease, it will in most instances serve as a guide to the purulent collection. Exploratory aspiration is objected to as a measure of diagnosis: it will not show whether the cavity is a large or a small one, and is a very probable source of danger in cases in which the affected portion of lung is not adherent to the wall of the chest.

The author, in concluding his paper, describes his method of treating pulmonary abscesses, which consists in resection of portions of one or more ribs, free exposure of the parietal layer of pleura, and in making with the thermo-cautery a free opening into the cavity after it is certain that adhesions exist between the lung and parietal pleura, or after a prolonged application of caustic has artificially established such adhesions. Pleural adhesions at the seat of operations he regards as an imperative condition in pneumotomy. If there be any doubt as to the existence of such adhesions, the surgeon must act upon the assumption that they are absent.

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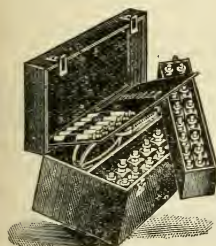
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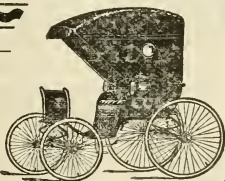
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[Reprint from the *Virginia Medical Monthly* for December, 1889.]

By JOHN HERBERT CLAIBORNE, M.A., M.D., of Petersburg, Va.

"I have for many years been prescribing BUFFALO LITHIA WATER in cases of LITHIASIS, URÆMIA, BRIGHT'S DISEASE, CYSTITIS, and congener affections; and with the same marked results which have followed their exhibition by a number of other physicians. The most striking instance, however, in which I have seen the SOLVENT properties of the water manifested was the case of Mr. Thomas D. Moss, of this city. He had been subject to attacks of LITHIASIS for several years, but in August last, after a most violent attack of NEPHRITIC COLIC, passed the GRAVEL from the KIDNEY into the BLADDER, where it remained for a week or more, setting up a *severe inflammation* of that organ, *with all of its painful and distressing symptoms*. Finally, however, it became lodged in the PROSTATIC portion of the URETHRA, *cutting off the flow of urine and causing retention*. Being compelled to use a catheter for the relief of this symptom, I pushed the CALCULUS back into the BLADDER. As there was too much acute inflammation to *resort either to the crushing of the STONE or to its removal* by LITHOTOMY, I put the patient to bed, restrained him to a milk diet, administered opium by suppository in sufficient doses to relieve the vesical tenesmus and pain, and directed him to drink BUFFALO LITHIA WATER in the largest quantities he could bear. At the end of about ten days he commenced to pass the DETRITA of the GRAVEL, as I suppose. IN QUANTITIES WHICH SEEMED INCREDIBLE. At all events, after passing his water on a clean board, and allowing as much of it to flow off as would, you could then scrape up with a knife a TEASPOONFUL or two, *after every passage of urine*, of PHOSPHATES, URATES, etc., closely resembling white-wash applied to the board, which had dried. This continued for a week. I then washed out the bladder several times with warm solution of BORIC acid. Mr. Moss was soon on his feet again. HE NOW says *he is perfectly well, and feels, for the first time in many years, entirely free from all kidney or bladder trouble.*"

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Postpartum hemorrhage, according to Tarnier, is subdivided into two main classes—those due to lesions of the cervix or vagina, and those from the uterus proper.

The diagnosis between these two conditions is important, as the treatment is entirely different.

Hemorrhage from the cervix and vagina is usually diagnosed by excluding uterine hemorrhage in finding the uterus small and firmly contracted. The treatment consists in putting the patient in a good light and looking for the tears. If found, compression maintained for a few minutes is sufficient to control the bleeding. If the site of the hemorrhage cannot be determined at once, which is usually the case, the vagina should be firmly tamponed with antiseptic gauze. In cases in which the hemorrhage comes from a torn cervix the bleeding vessels are ligated or the laceration repaired at once by sutures.

Hemorrhage from the body of the uterus is almost always caused by inertia of the uterus. The treatment is subdivi-

ded into prophylactic, curative, and consecutive or after treatment.

The prophylactic treatment consists in shortening the duration of labor a little in those women who have a predisposition to this trouble by rupturing the membranes early in suitable cases, extracting the child rapidly when indicated, and keeping up pressure on the uterus for some time after delivery. Ergot may be given in some cases, but he has seen poor results from it so many times that he does not insist on giving it.

The curative treatment consists in complete evacuation of the contents of the uterus. This is a painful procedure, but should never be neglected in cases of severe hemorrhage. Injections of hot water, ergot, and packing with gauze are all more or less efficient, but seem to be inferior to immediate and complete evacuation of the uterine cavity.

The after treatment should be instituted at once and consists in giving alcoholic stimulants, warmth, and the assumption of an inclined position with the shoulders low. The extremities should be ligated during active hemorrhage, and infusion of saline solution given when necessary.

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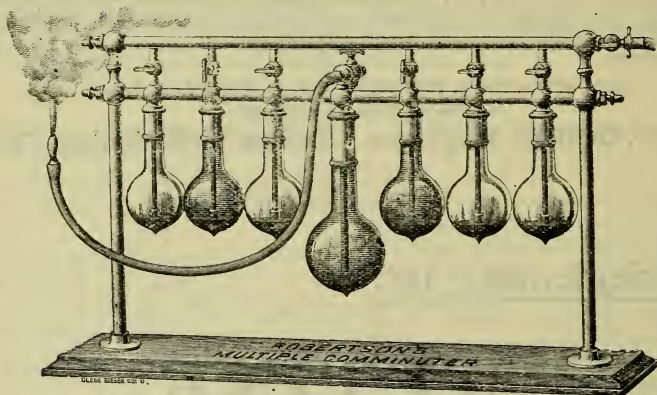
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CAUTION. One of the best evidences of the value of an invention is the appearance of imitations and counterfeits. Thieves do not trouble themselves to steal worthless articles. During the past few months a number of unscrupulous persons have attempted to make and sell imitations of the Multiple Comminuter. Proceedings have been commenced and all infringers will be prosecuted to the full extent of the law. Physicians and dealers are cautioned against purchasing, selling, or using any imitation of this invention or any apparatus that appears to be genuine unless it bears our name. Our rights are fully protected by Letters Patent, granted to Dr. John Robertson, as follows: United States, Patent No. 549,822, Nov. 12, 1895; Canada, No. 51,610, March 10, 1896; France, No. 251,630, Nov. 12, 1895; Great Britain, No. 21,450, Nov. 12, 1895. Patents now pending in Germany.

THE PNEUMACHEMIC CO., 120 Longworth St., Cincinnati, O.

Murphy's Button.

Czerny, in a paper read at the last meeting of the German Surgical Society, states that he was led to make trial of Murphy's button by the results of recent experiments made by Marwedel on animals. These researches proved that the button effects a very even union of the intestinal walls without pseudo-membranous adhesions, and that the opening shows no tendency to subsequent contraction. Of 13 cases in which the author has used the button, 3 were fatal. In one of these fatal cases death was the result of pressure, gangrene, and perforation, in consequence of the application of too large a button. In the other two cases the button was used in the very unfavourable conditions of enterectomy for extensive gangrene of strangulated hernia. The button, Czerny found, was usually discharged in the stools in the course of the second or third week. In a case of successful gastro-enterostomy the button had not been passed up to the date of the patient's discharge twenty-four days after the operation. It is pointed out that the use of Murphy's button, like that of every other method of intestinal approximation, requires practice, although its mode of application can be more readily learnt than that of a good double suture, which in Czerny's opinion is still the best method of closing wounds in the intestine. The chief objection to Murphy's method is the sojourn of a heavy metallic substance in the intestinal canal. Until this has been discharged naturally by the bowel the surgeon must remain anxious as to the welfare of his patient. It is concluded that Murphy's button, though not the final solution of the problem of intestinal suture, marks an important advance in this direction, and, therefore, demands careful study.

Effects of Mental Vocations.

Great brain and nerve strain, as in insanity, brittles the bones; grief and fright blanch the face and hair; fear paralyses the heart, depresses temperature, causes excessive and clammy perspiration; anxiety arrests secretion and shrivels the skin; remorse wastes away the body; anger flushes the face, and so fills the

brain with blood, that its vessels burst and the victims fall with apoplexy; shame flushes the cheek, slows the heart and respiration; sorrow shows itself in tears; love and good fortune brighten the countenance and quicken the step and pulse and lift up the form, while adversity and remorse sadden the face, slow the pulse, bend the form, and depress the bodily movements. These things, and many needless to mention, show us the potency of mental influence, through its proper natural channels, on the movements of the organism. We cannot deny them in regard to the stomach. On the contrary as we see the systole of the heart arrested by emotion, so we see digestion stayed by disagreeable and depressing thought. Mental force, through psychological media, pervades the body, and the stomach is not exempt from its invigorating or depressing influence over its physiologic functions.

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Dr. Lenti, of the Hygienic Institute of Naples, has found that corrosive sublimate dissolved in alcohol has proved useless; even in 1-250 solution on spores, which were placed in solution for forty-eight hours, their virulence was only weakened. By adding 10 per cent. water to the alcohol, the germs were destroyed in a 1-1000 solution. A 2 per cent. solution of corrosive sublimate in pure glycerine was useless even after subjecting the spore of it for four days. By adding 40 per cent. water they were destroyed in a solution of 2-1000 in twenty-four hours. A 10 per cent. solution of carbolic acid in alcohol is useless, and remains so even up to 50 per cent. By adding 80 per cent. water the germs were destroyed in forty eight hours. A 10 per cent. solution of carbolic acid in glycerine proved ineffectual even after seventy-two hours; 10 per cent. water added did not change it, but after 80 per cent. water was added it destroyed the germs in forty-eight hours. A 20 per cent. solution of carbolic acid in oil, and a 10 per cent. solution of lysol in oil, are both useless.

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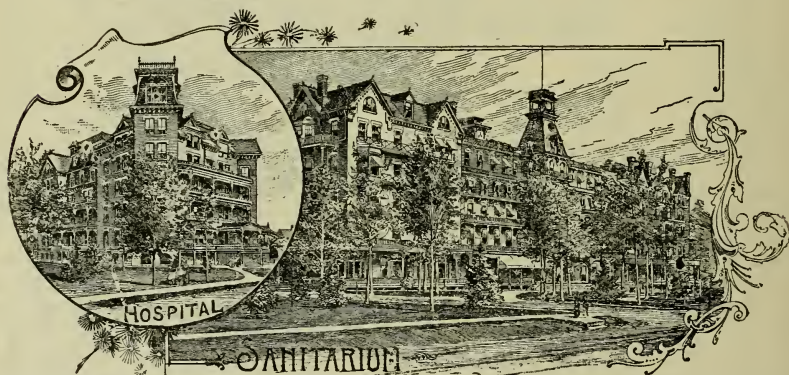
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The Charlotte Medical Journal.

VOL. IX.

CHARLOTTE, N. C., OCTOBER, 1896.

No. 5.

Climate in the Treatment of Phthisis.

By FRANK T. MERIWETHER, U. S. Army. Retired, Asheville, N. C.

Notwithstanding the advances made during the past few years in the medicinal treatment of Pulmonary Tuberculosis, it still remains a fact that climate plays a very important part in the therapeutics of this disease.

Climate establishes constitutional tendencies through molecular modifications which tend to become more or less permanent, dependent upon the length of time of residence and the individual idiosyncrasies.

In the treatment of Phthisis by climatic influences it cures or tends to cure by the removal of the consumptive from the unfavorable conditions in which the disease originated, and transferring him to a place where fresh air, sunshine and out-door life is enjoyed, and where, in consequence, the processes of respiration, digestion and sanguification may proceed with sufficient energy to combat successfully the tendencies, hereditary or acquired, to pulmonary disease.

Without entering into a discussion; *pro and con*, as to the results of the several so-called specific treatments of Pulmonary Tuberculosis, I believe that better results will be secured from any of them in a suitable climate for the phthisical than in the place where the disease originated; but it seems to me that *the* way to attack the disease is through the nutrition.

Manifesting itself primarily by depraving or lowering the nutritive forces of the body, we must meet it on its own ground and so increase the nutrition that we put the disease on the defensive and finally rout it from its stronghold. By improving the nutrition we so increase the leucocytosis that the bacilli are destroyed and the soil made unfavorable for reinfection. In doing this we need three important factors, viz.: fresh air, good food and a proper amount of exercise.

For the first and last a suitable climate is necessary, while the second may be assisted by medicinal agents, cod liver oil, tonics, etc.

In order to obtain fresh air and to take the greatest amount of beneficial exercise we want a climate presenting a large number of clear and fair days during which one can get out of doors and with a temperature which will encourage one to walk or ride.

In looking for a good climate for the phthisical we want one where the air is not too dry and harsh as to irritate the mucous membrane of the air passages, nor yet too moist, for the moist climates undoubtedly tend to promote the breaking down of lung tissue. The best air for the tubercular case should have a humidity varying in average relative humidity from 60 to 70, remembering always that in this factor, as well as others, cases present individual idiosyncrasies, and that to a certain extent climatic influence is a matter for personal experiment, some pulmonary cases undoubtedly doing well in a humidity and under other conditions which to another series of cases would be very detrimental; and so also as to dryness and high altitudes.

Another desideratum in a good climate for the phthisical, and a most important one to most lung cases, is an equability of temperature. Just what an equability of temperature means is a difficult thing to determine, medicinally, not meteorological, of course, each case being a law to itself. Many cases do well, undoubtedly, and, in fact, require such an even temperature as is usually found in Southern California, and yet I believe I am stating a truth when I say that nearly all phthisical patients, particularly those in the earlier stages of the disease, do better in a place where the extremes of temperature are more marked, provided these extremes are not too great, and that the variations are not too sudden. It certainly takes a good deal of vitality and energy to withstand such variability as I saw while in Colorado, and yet many patients do remarkably well there. The average case

needs a little cold weather now and then to brace them up.

It seems to me that Southern California has too much of an evenness of temperature; it is too enervating to be a good place for the consumptive, particularly if young and in the earlier stages of the disease. This evenness of temperature, however, is more apparent than real, the difference between the sun and shade temperature being very marked.

A great number of clear and fair days is a necessity, and this factor in climatology must be studied in connection with data of the other meteorological conditions or else one might be misled. For instance, in Colorado I have seen many of their clear, apparently beautiful days, when viewed from within the house, so marred by the wind and sand storms as to make it extremely uncomfortable for even a well man to venture out, and practically impossible for the invalid.

As for altitude, I think it of itself plays a much less important part in the effects of climate than is usually assigned to it. Undoubtedly at altitudes of from five to seven thousand feet the air is usually dry and bracing, and the number of clear and fair days large, but with this altitude we usually also find a very variable temperature with a low minimum, and frequent high winds. And then another thing, the consumptive even in the incipient stages has, to start with, a weak heart, not all of them, but the majority. An elevation of more than four thousand feet throws not a little extra work upon the heart already depressed, and so from the start the patient is handicapped, at least until compensation is established and the usual normal hypertrophy has occurred in the heart muscle. I noticed while in Denver the marked weakness of the heart in my own case and that of others, even those in perfect health, upon the slightest exertion. In the healthy, as I say, a normal hypertrophy takes place in a few months thus overcoming this difficulty, but with the phthisical it must take a long time for this to occur, if ever, and then at these high altitudes the nervous system is at a tension, for a time at least, in some cases so marked as to cause great distress, manifesting itself often very disagreeably in insomnia, particularly.

The higher altitudes also undoubtedly predispose to hemorrhage.

I doubt if the lessened amount of oxygen at high altitudes plays any part in the shortness of breath and other signs of distress often so noticeable, attributing them all to the increased load on the heart.

At altitudes from two to four thousand feet, however, we get a stimulating effect upon the circulation, and to a certain extent upon the nervous system without the over-stimulation of the higher altitudes. The respirations are deeper and if anything a little slower than at the sea level, whereas, in the higher altitudes the respirations are more rapid, until one becomes acclimated, as it were.

Being a "lunger" myself I can appreciate the minor points in a climate which, perhaps, a well man would not notice, and which from statistics could not be learned. In fact, in climatology, as in every thing, statistical figures may be made to prove almost anything by changing combinations, and it is only by taking into consideration every possible factor that anything can be deduced from them.

Every pulmonary case should be studied by itself, some doing well in California, others in Colorado, some in Florida, and so on, but my personal experience teaches me that Western North Carolina, particularly Asheville and its plateau, presents features which none of these other localities do, and combined with fewer objections. Presenting, as it does, 296 clear and fair days in the year, with an average annual relative humidity of 62.14, very few even strong winds, surrounded by mountains covered with Balsam and Pines, upon an extensive elevated plateau, at an altitude of about 2400 feet, easily accessible by railroad from any point, North, East, South or West, with a mean annual temperature, hardly with its equal in this or any other country, I don't believe it can be surpassed as a climate for the phthisical. Within a radius of 50 miles elevations of from one to six thousand feet may be obtained with the other conditions practically the same. There is no scenery in America equal to this section, well named the "Land of the Sky" and the "Switzerland of America," and the many attractions in the way of hunting, fishing and mountain trips all tend to draw the invalid out of doors.

The great trouble with most patients is that coming here in all the stages of the

disease they expect to get well in a very few months at the longest, many thinking a few weeks' stay sufficient. They should be instructed that the climate merely puts them in as favorable condition as possible to make a strong fight against the disease, and that a more or less permanent residence is almost a necessity.

The meteorological data appended herewith will show in comparison the climates so far as statistics can, of San Diego, California, Denver, Colorado, and Asheville, North Carolina. Those for the two former places were furnished me by Mr. Moore,

the efficient head of the weather Bureau, and are for the years 1886 to 1893; those for Asheville being arranged from the reports of Dr. von Ruck, of the Winyah Sanatorium. Unfortunately those for Asheville can only be obtained for the years 1893 and 1894, a fire in Dr. von Ruck's Sanatorium destroying those of previous years, but as the past three or four winters have been extreme in Asheville, as in all the south, I think the average, particularly of temperature, will be if anything more unfavorable than if a larger number of years were taken.

STATIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	ANNUAL.
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Monthly Mean Temperature.

Denver, Col.....	27.4	32.5	39.6	47.4	56.8	66.9	72.6	70.8	62.3	51.0	37.4	32.1	49.7
San Diego, Cal.....	53.4	54.9	56.5	59.1	61.8	65.1	68.0	69.8	67.8	63.4	59.0	56.0	61.2
Asheville, N. C.....	34.7	40.7	47.3	55.8	61.5	69.0	71.4	70.8	68.3	56.1	45.3	38.8	54.8

Monthly Mean Precipitation.

Denver, Col.....	0.7	0.5	1.0	2.1	2.7	1.4	1.5	1.5	0.9	0.8	0.8	0.7	14.5
San Diego, Cal.....	1.6	2.1	1.0	1.0	0.3	0.1	0.1	0.1	0.1	0.3	1.0	2.1	9.8
Asheville, N. C.....	2.8	4.3	2.3	2.6	3.5	3.4	3.5	5.	5.2	4.0	2.2	2.6	41.4

Monthly Extremes of Temperature.

Denver, Col., Max.....	76	77	81	83	92	99	102	105	94	91	76	74	
" " Min.....	*29	*20	*10	4	27	36	42	44	28	1	*18	*25	
San Diego, Cal., Max.....	80	85	99	93	94	94	88	92	101	92	91	82	
" " Min.....	32	34	36	39	45	50	54	54	50	44	38	32	
Asheville, N. C., Max.....	65	64	81	85	86	88	90	89	88	80	75	63	
" " Min.....	*4	15	10	27	36	48	53	53	43	26	15	5	

Average Number of Clear Days.

Denver, Col.....	15	12	12	10	9	13	11	11	17	16	15	14	155
San Diego, Cal.....	15	12	9	12	9	9	13	12	14	15	16	14	150
Asheville, N. C.....	16	11	17	17	15	20	17	10	13	24	19	17	196

Average Number of Cloudy Days.

Denver, Col.....	4	4	6	7	7	3	4	4	3	4	4	3	53
San Diego, Cal.....	7	7	10	8	11	7	5	14	4	5	5	7	90
Asheville, N. C.....	6	9	8	5	6	7	2	7	6	3	4	6	69

Mean Monthly Variation of Temperature.

Denver, Col.....	105	97	91	79	65	63	60	61	66	90	94	99	80.8
San Diego, Cal.....	48	51	63	54	49	44	34	38	51	48	53	50	48.6
Asheville, N. C.....	69	49	71	58	50	40	37	36	45	54	60	58	52.2

*Signifies Minimum temperature, below zero.

A Plea for the More Systemic Care and Attention of Chronic Functional Diseases, by the Rest Treatment.*

By CURRAN POPE, Professor of Diseases of the Mind and Nervous System and Electrotherapeutics in the Louisville Medical College; Consulting Neurologist to the Louisville Medical College Hospital; Consulting Neurologist to the Louisville City Hospital; Professor of Hygiene in the Kentucky Military Institute; formerly Resident Physician to the Anchorage (Insane) Asylum; Member of the American Medical, Mississippi Valley Medical, American Electro Therapeutic Association, Central and North Eastern Kentucky Medical Associations; the Kentucky State Medical, and Mitchell District Societies; Fellow of the Louisville Academy of Medicine, Superintendent of the Curran Pope Sanatorium, and Editor of the New Albany Medical Herald.

I come today to plead the cause of a class of cases alarmingly large, whose sufferings are intense, who as a rule linger for months and years under the dark shadow of disease, curable yet uncured, who might by the combined influence of certain measures be restored to health. From the crude ideas and methods of our predecessors there is being evolved today scientific precision, which promises much for the future.

The American is a busy, hurrying, worrying, fitful, fretful, uneasy, restless, dissatisfied person, whose every nerve is on a strain, and whose days and nights are a series of force robbing epochs. Even the delicate structures soft and yielding tissues of childhood are not spared, their immature and developing nervous systems are subjected to such excitement, strain and mental activity that the wonder is that they survive long enough to join the vast army of neurasthenics and hysterics. Their children never mature and become the men and women who made our race. The men were made of sterner stuff, rarely suffered from the vitiated air of close school rooms, never went home with a headache (unless he had a fight), or complained of the pangs of nervous dyspepsia. The women were *women* and were proud to consider themselves the mothers of large and healthy families. The parents' bodies were like their brains,

and the "sofa girl," "ennui," "that tired feeling," "my poor spine," rarely existed or were made patent by the nostrum vendor. Rapid transit, palatial sky-scrapers, electric lights and steam heating were unknown and the pure air of heaven whistled down the large chimney to set the logs aglow, or rattled through the loose windows and doors, while a tallow dip made night luminous, and sent our forefathers to an early bed, where the well earned rest was taken betimes for preparation of the coming day. And they slept. No jangling firebells, no telephone's alarm, no incubi of stock exchange, no bulls or bears, no terrible ticker broke the peace of their sweet dreams.

How different this individual is today. Early astir, he hastily but completely masters the main facts of the world! History of a day notes the fluctuations of stocks or cereals, and long before he has taken his morning meal has probably planned a day's campaign against Bull or Bear. His activity, mental and physical, is ceaseless and even while he is asleep he is whirled in his luxurious "Parlor Sleeping Car" half a hundred miles an hour. He rarely rests, never eats satisfactorily, and frequently exists in a state of "five minutes for refreshments." I have seen men, and women for that matter, take five minutes for eating their dinner and twenty-five minutes for picking their teeth.

Our entire time seems to be spent in business as well as pleasure in the demolition of force rather than in the conservation and preservation of energy. The measure of health is the measure of brain and nerve power. Let these but be deranged and all goes wrong. The body is but a great manufactory for the preparation of pabulum for the brain and nervous system, and for the proper elimination of waste products, and when the brain tires, all the other systems, heart, lungs, stomach and kidneys refuse to do their duty, and even death may ensue.

I read the sudden death of an apparently healthy statesman the other day. Midnight committees, the struggle to keep his party together, the exhaustion incident to his life caused his brain to refuse to do its duty, and his heart snapped. He died of acute cerebral exhaustion, killed by his own hand as surely and as certainly as though it had held the

*Read by Title before the Kentucky State Medical Society.

smoking revolver, or lifted the "draught of Socrates" to his mouth. Brain failure means heart failure, lung failure, kidney failure, as well as dyspepsia, constipation, and a hundred ills that flesh is heir to, and the sooner we recognize this the better we will be. The causes in women are somewhat more or less similar, and today the women of city and country are alive and active, and demanding and getting more luxuries with less physical activity, expending more energy in clubs and social life, than formerly. All tend toward an intense weakening of the neutral forces and the developing of symptoms tangible and intangible, local and general, which require the utmost care and consideration on the part of physicians.

The young man and woman, shining lights of fashionable society complain of heart pains, dyspepsia, faint easily, have headaches, become pale, and awake some day to the stern realization that the fangs of functional disease are deeply fixed upon them, and that something radical must be done to remove a condition chronic and unbearable.

The pathological results were dwelt upon by me in a paper read at our last meeting (see "Reflections upon the Therapeutics of Nervous Diseases, Transactions of the Kentucky State Medical Society, 1895,") and I need not dwell upon them again here.

To meet these cases of chronic functional disease we must have many means of therapeutics. Slow and methodical means of handling these cases are essential, and when tonics, change of air, exercise and the gynecologist has done all that can be done, then the case comes to the court of final appeal—the Rest Treatment. I have denominated it the Rest Treatment, but it is the liveliest rest cure ever used.

Permit me to say that in some patients we can use a graduated Rest Treatment, but in all cases in which there is aggravated hysteria or neurasthenia the treatment neither more nor less must be used, and I attribute the success which has marked my results, to be due to the unswerving care and attention to the minutest details, which are laid down for these cases. We put a person to bed, give them massage, electricity, excessive feeding, forbidding letter writing and even

reading at times, and if the case needs be perfect seclusion. These remedies amplified by such hydrotherapeutic measures as are deemed wise, constitute a galaxy of measures capable when supplimented by the simplest of medicines of creating a revolution in nervous cases.

Many physicians are totally unfitted for the care and reception of such cases, who do best when received into an institution, where every facility is at hand. The doctor must possess a certain adaptability for the work and control his patients absolutely, but with the greatest of kindness, imbuing them all the while with rational and healthy ideas. No one who is an "invertebrate" should touch such cases, nor should be fail to utilize in each case what cerebral grey matter we possess. Treat your patient by this method, but remember the absolute necessity of individualizing in each case. The nurse is important, and should be especially trained for these cases. Few nurses are of real value, until they have received a special course. An injudicious nurse will do more harm than any other one factor in the case. Polite, tactful, with perfect control of her emotions and temper, intelligent and pleasant are a few requirements.

Massage is absolutely necessary, and good manipulators are few. I have never treated a case without its use, and never expect to. The effect is well known and essential to these cases. Electricity is, in my opinion, just as necessary as the massage, and its results are sometimes immediate, increasing the general system tone, warming the cold extremities, improving the pulse and lessening nerve irritability. I have known cases to sleep for a short time after its use. For this reason I use massage and electricity just before the daily rest hour. During this hour patients must remain absolutely quiet, and, if possible, sleep. The food requires care. At first milk plain, peptonized, or koumyss, must be used in great abundance, and later food added as the assimilative powers increase. Much exertion as is required in letter writing must be abolished for the time being, or until such time as marked improvement occurs.

Some cases require perfect seclusion, but there are others with whom a modified schedule is of great advantage. The

physician alone is the judge of these cases.

I desire to reiterate that no single one or two methods here mentioned are of the slightest value alone, but when combined, modified and individualized to cases of functional disease, give many hopeless sufferers a chance for recovery, that no other mode or combination of methods can offer.

The above measures can be greatly aided by a careful use of hydrotherapy, and to this end a neatly applied dripping sheet, general pack, hot pediluvium, the pail dash, offer, in a well regulated Sanatorium, a field for usefulness unexcelled. These cases do well under the well conducted regime, order and system of a Sanatorium possessing the proper facilities for giving individual time and attention to the patients. Failures usually result because details are not carried out, or the treatment given in the patient's home. The severance of home ties, the life among strangers, the absolute change, constitutes important features of the treatment. A healthy train of ideas are then substituted for the pathological ones.

Medicinally little can be done. As patients get better the vast quantity of stored force must be mobilized, and this is gradually brought about through Sweedish movements and gentle exercise. Gradually short rides are turned into short walks, then longer, until a state of health is reached. To retain this we tell the patient to sleep late in the morning, take meal in between meals, observe two rest hours during the day, walk daily and retire early. With a return home these are for a while carried out, but the patient generally drifts into the life of the community in a shorter or longer time. These people should have diversion; mental and physical. The former is frequently found in the short novel, where the interest is maintained, but its length does not wear.

The bicycle, lawn tennis, riding and driving serve the other useful purposes. They are now well, and having learned from an unhappy experience that there is no joy such as health, they should continue rich and happy, in mind and body, by a well regulated expenditure of energy and a rational mode of life.

Chicago has seventeen medical schools.

Ringworm Contracted from a Cat.

By M. B. HUTCHINS, M. D., Clinical Lecturer
on Skin Diseases and Syphilis, Atlanta
Medical College, Atlanta, Ga.

It is well known to dermatologists that ringworm is frequently contracted from the domestic animals, but this fact is either not known or not appreciated by the general practitioner. Many animals which are supposed to have the "mange" are really afflicted with ringworm. If the animal is of sufficient value to be kept, or if it is the pet of the family, it should be isolated and properly treated, or the children may become infected. This brief paper is written as a warning against the dangers of skin infection in this manner, and with the hope of protecting children from a disagreeable and communicable disease. *Tinea circinata* or ringworm of the skin, is in itself an easily managed affection, but it is one which no parent should permit a child to have, and one which we should not allow communicated to others. There is no doubt in my mind that there are many cases of ringworm, perhaps, especially of the scalp, now in the public schools of the city.

The knowledge of the source of disease is helping greatly in its prevention, and prevention is now much more successful in many diseases than is cure. If we know that the especial pet of the little children may communicate to them an unpleasant disease, we are in position to prevent such an occurrence, and if prevention fails, to recognize the source of the disease.

The above is prefatory to the description of a case, recently under my care, which may briefly be detailed as follows:

A little school girl aged seven. The first lesion appeared on the face, about ten days before; later the two body lesions. When I saw the patient the condition was as follows:

Over the lower edge of the left molar eminence a quarter dollar sized patch clear in the center, forming a ring one-eighth inch wide, composed of fine papulo-vesicles and crusts. A similar, but smaller, lesion in the right cheek, then one on the right posterior thoracic surface, and one on the mons veneris.

Despite the irritation produced by a

popular, patent skin mixture the disease presented no difficulty to the diagnosis of ringworm.

The father stated that a "stray" maltese cat had "taken up" at his house a month previously, and that the child played with it, and it frequently got in the bed with her.

The little girl was treated with the Pyrogallic Collodion mixture. Upon the next visit she brought the cat. A large part of the neck, anterior part of the body and the fore legs showed scaliness and broken or nearly absent hairs on the skin—such a condition as this is frequently called "mange."

Some of the broken hairs and scales were removed and examined, in liquor potassæ, under the microscope. The trichophyton fungus was abundantly present in the root-sheaths of the hairs and in the scales.

Thus the microscope proved the existence of ringworm in the cat, and as the cat had it first and the child had been exposed only to the contagion from the cat, the inference that the cat "gave" the disease to the child became a certainty.

It is only necessary to add in closing that the possibility of contracting not only ringworm, but more serious diseases from the lower animals, should never be lost sight of.

No. 311-312 Titten Building.

An Instructive Case of Labial Cyst.*

By R. M. STONE, A. M., M. D., Omaha, Neb.

On August 1st, 1896, I was requested to examine Miss A., who gave me the following history: Some two weeks prior she began to have a feeling of uneasiness in the left labium. Soon there was some swelling and a little pain. She described the swelling as never having been solid, always puffy as if there was gas in it, and stated that it disappeared upon her lying down up to two days before I saw her, and that during these two days she was always able by manipulation to cause it to disappear. There had been neither heat nor redness at any time. While I

had never had the fortune to see a labial hernia, here seemed to be a typical one from verbal description. Upon examinations I found in the labium a tumor the size of an ordinary egg, free from tenderness, not unduly red, puffy, semi-fluid in consistency, but not gaseous in feeling. While I had examined many cases of labial abscess I had never met with one having the peculiar feeling which this had. I was not able by any manipulation to cause it to disappear, although the patient was positive that she had been able to that morning. Since the patient requested anesthesia, at 3 P. M. I placed her under chloroform before using the knife. Upon making an ordinary incision I emptied the sac of an ounce or more of material of the appearance and consistence of the white of an egg. The sac collapsed; there was no hemorrhage, and I supposed moderate pressure would end it. At 6 P. M. I was informed by telephone that a free hemorrhage had set in, saturating completely three large towels. I went out, found a free hemorrhage still present, controlled it completely by firm pressure with a hard roll of cotton so that when pressure was removed there was no hemorrhage for twenty or thirty minutes. I left feeling secure, but maintained moderate pressure by close apposition of the thighs. At 9 P. M. I was informed of an alarming hemorrhage. I took my friend, Dr. Allison, with me, and we found it necessary to enlarge very materially the incision, pack the sac thoroughly with pledgets of cotton and put on a spica bandage.

We watched it a few moments and found the blood flowing to an alarming degree in spite of this pressure. We removed the bandage and pledgets, and found the blood oozing from the sac walls, sweating out as it were. We tied off some large surfaces of bleeding tissue and at last were compelled to leave two or three artery forceps on where ligatures could not be applied. We again put on pressure and the spica, (and, by the way, a spica most carefully applied exerts very little pressure over a labium). We found in the morning that our energetic measures had at last entirely arrested the hemorrhage. Recovery was uneventful.

The history of the patient showed no bleeders in the family. And the patient had never had any trouble from hemor-

*Read before the Medical Society of the Missouri Valley at Council Bluffs, Iowa, Sept. 17th, 1896

rhage from a tooth pulled or an accidental cut. The only thing that looked in that direction was once or twice during her menstrual life she had had very profuse and long continued menstrual flows. Incidentally we found that she had a tender and much enlarged left ovary.

The two matters of particular interest to us are that with a typical description of labial hernia a cyst should be found, and that the hemorrhage should have been so profuse in a case not having any hemorrhagic history.

Gonorrhœa in Its Relation to Marriage,

By DR. CARL PROEGLER, Fort Wayne, Md.

Physicians who treat sexual diseases, are very often asked by patients, especially Syphilitics, about marriage. Numerous works, especially "Fournier's Syphilis and Marriage," will enable the physician to answer such questions intelligently. But if a patient, who contracted gonorrhœa, leads off with similar questions, the physician will hardly find in any of the text-books on sexual diseases, Finger included, a satisfactory answer. This seems the more strange, as many writers, both foreign and native, have treated the subject of chronic gonorrhœa or gleet in its latent form quite extensively. Noeggerath, of New York, was the first who treated the subject more extensively and drew the attention of the profession to the danger arising from marriage with gonorrhœics. He formulated a dictum, that the wife of any man, who had gonorrhœa before marriage, will, with few exceptions, develop later on a latent gonorrhœa.

Ricord and Lewin, and the statistics of the German army, estimate that about 80 per cent. of men in large cities are affected with gonorrhœa. A man cannot be pronounced cured, who does not show any more discharge, except a microscopical examination finds a normal secretion from the urethra. French and German military surgeons say that 90 per cent. of gonorrhœa are not cured and that of 100 women, who married men with supposed gonorrhœa, only 10 will be found sound. Even with a limited material on

my hands, I must consider this assertion correct.

Bumstead, Schwartz, Ricord, &c., found that 10 to 15 per cent. of men were affected with incurable gonorrhœa, caused by neglect of their own or through mismanagement or ignorance of their physicians.

Professor Saenger, of Leipzig, in a paper read before the German Gynecological Congress in Berlin, found that in 1930 cases, tabulated by various observers, 230 or 12 per cent., or $\frac{1}{8}$ of all cases of pyosalpinx, and other surgical diseases of women, gonorrhœa was the primary cause. In 161 cases, which were personally observed by him, 29, or 18 per cent., were affected with gonorrhœa. We may safely assume that $\frac{1}{4}$ per cent. of all the cases seen by gynecologists, have their origin in gonorrhœal affections. Think of the fearful amount of suffering and invalidism caused by men with chronic gonorrhœa, who either through ignorance of their own or their physicians are allowed to marry. We can readily see that gonorrhœa is not such a harmless affection after all as a good many suppose it to be, and that one prescription and a clap syringe will never cure or even abort a case of gonorrhœa or gleet. Man is not the only sufferer, but his wife and very often the unborn child has to suffer from the transgression of his parents, and enters the world already seriously handicapped.—Cases of serious complications are often met, not only in the acute stage, as epididymitis, ulcerations, cystitis, &c., but more so in the chronic stage.

Any patient presenting himself to us in such a condition and showing that he is the carrier of infection, which may at any time prove serious and even fatal, ought certainly not be allowed to marry.

Posterior urethritis is always complicated with prostatitis, the glands gets in most cases acutely inflamed, very often leading to abscess formation, pyæmia and death. Strictures, which are always present in chronic gonorrhœa and if not properly treated by gradual dilatation, may cause cystitis, eventually leading to urinary infiltrations, causing intense inflammation, the renal pelvis and parenchyma may be involved, developing nephritis, which may become intractable to treatment, very often ending fatally.

*Read before the Upper Maumee Valley Medical Association at Winona Park, near Warsaw, Ind., Sept. 8th, 1896.

In the chronic stage of urethritis, neurasthenia is generally developed, tormenting the patient. In spite of good appearance and nutrition the patients are usually in a deplorable state. Impotence and pollutions depress the mind, the nervous disturbances spread farther and other spinal symptoms are added. These include the various manifestations of spinal irritation, pressure and pain in the back, formication, cold or heat along the spine, radiating neuralgias and paralysis, particularly the lumbosacral plexus. Gastric and internal catarrh may set in, caused by atony, the nervous symptoms become more severe, the unstable vasomotor systems causes rapidly changing color, pallor and redness, especially in the face. Digestion is poor, the local symptoms in the domain of the uropotetic and sexual organs attain considerable intensity. No wonder that not a few of these patients terminate their existence by suicide. The number of women who lose their lives through gonorrhœal infection is quite large, and a large proportion lives a miserable existence. Among the diseases we may mention pelviperitonitis, perimetritis, pyosalpinx, &c. If they have children, quite a number are diseased with blenorrhœa neonatorum.

Magnus, Graeffe and American physicians, have found that in asylums for the blind about 75 per cent. are caused by gonorrheal infection, certainly frightful to contemplate. The number of these unfortunates is even now very large in private practice in spite of improved methods of treatment and warnings of eye surgeons.

With these facts before us, the question whether a man shall be allowed to marry who once acquired a gonorrhœa and considers himself cured of the same, is *socially* and *hygienically* a *very grave* one.

No modern physician will neglect to examine microscopically the membranous deposits of the fauces in suspected diphtheria, and he certainly ought not to be unmindful to use the same precautions in cases of gonorrhœa. It is absolutely necessary to examine the discharge or the urine. In every case the micro-organism must be fully proven to be gonorrhœic.

Gonorrhœa is the only infectious catarrh of the female sexual organs. No other secretion of whatever nature will

produce in the male urethra, gonorrhœa, neither carcinoma, nor menstrual discharge, nor profuse secretions from whatever cause, nor even the thick white secretions of vaginitis desquamativa of pregnant, chlorotic or scrofulous subjects. The carriers of the gonorrhœal contagion or the contagium proper are the gonococci of Neisser. A secretion in which they are found is capable of infection, without them no infection is possible. Without gonococci no gonorrhœa, they are the real and only pathognomonic sign of clap.

The shape of the gonococci resemble that of coffee beans, and the fact that in as much as they are diplococci, they are always found joined in twos and twos. The mode of their division gives rise to circumstances that the gonococci are never found in chains however short, but always in heaps. They are readily chained by aniline colors, but they lose their staining readily in comparison with the majority of other cocci.

If they are absent, or present in such small numbers, that doubt in diagnosis is justified, more intense suppuration of the urethra should then be produced by an injection of $\frac{1}{2}$ per cent. nitrate of silver or formalin. This produces pus cells, enclosing characteristic cocci groups and a diagnosis becomes clear.

We can only say positively that a man has been permanently cured from gonorrhœa when no cocci, no strictures of whatever kind, no clap shreds according to Fuerbruger, &c., are to be found and the secretions of the urethra are again normal.

If this is the case and only till then we may sanction the marriage of a gonorrhœic. It is the duty of every practicing physician to make himself familiar with bacteriological methods of examination, or if that is not possible, to have the examinations made by some physician who can. All of us ought to be mindful of the facts, what grave responsibility rests on us to treat cases of gonorrhœa lightly, the amount of suffering and subsequent ailments to the patient may be irreparable.

The late Dr. John Grieve has bequeathed £8,000 to the University of Glasgow for the endowment of a lectureship, or fellowship, or a scholarship, to which orphans of the sons of widows have the preference.

Neurasthenia.

By E. C. REGISTER, M. D., Charlotte, N. C.

I am satisfied that too many physicians look upon patients suffering with this disease as hysterical or hypochondriacal, and treat them with less consideration than they should.

It is mainly on this account that neurasthenic patients seek the services of irregular practitioners and the traveling quacks.

It is natural that the surgeon would look upon diseases somewhat skeptical that do not present a visible object for the operator's knife, and the obstetrician who depends largely upon his tactile sense for a diagnosis to be a disbeliever in the aches and pains of his neurotic patients.

If it is, therefore, the general practitioner whose whole study has not been confined along a narrow specialty that I appeal to, to give this class of patients a courteous hearing and a most searching investigation. We have in this condition phenomena of irritation without being able to discover any anatomical changes in the nervous structures.

It is the nervous system alone which establishes a unity in the animal and human organism, and maintains its functions. All joy and every pleasure, all sorrow and every pain we experience, reaches our consciousness by way of the nervous system. All the activity we develop is through the nervous system. Consciousness itself and its manifestations are dependent on the central nervous system.

All advances in medicine, art, culture, have for their prerequisite a strong and healthy nervous system. As all functions and advancements are dependent on the nervous system, it is no wonder that disturbances of it are of frequent occurrence, and that they arouse and deserve the interest of the physician. I mean the so-called functional diseases of the nervous system, for the disease under consideration must be denominated a functional one. The pathological alterations are either cellular or vascular in so slight a degree that their exact nature has not yet been demonstrated. There is no doubt but that the nervous system can be in an asthenic condition produced by reflex or by vascular disturbances.

The human cerebrum can become exhausted by excessive function. The sympathetic and the cerebro-spinal nervous system can become asthenic in whole or in part. Precisely wherein this asthenia consists, what cellular alterations compose it, is yet an undetermined field of investigation. In simple cases of melancholia, where there is simple blunting of the emotions, with a tingle of depression; or perhaps a paralysis of energy, no student of medicine would doubt for one moment that there was a condition of disease.

No pathological textural changes, however, have ever been pointed out. The same must be said of periodic insanity, paranoia, primary dementia, hallucinatory insanity, the insanity of pubescence, and of the insanity of the puerperal condition. Pathologists do not regard favorable the term "functional disease," and some of them even deny their existence.

It is believed that there can be no morbid manifestations without a change in the material structure of the organs involved. We must be fully convinced, however, that these functional diseases mentioned in this article, although presenting no known primary anatomical changes, must be due to changes that are of a molecular character. In every case of neurasthenia, that is brought to us, a careful urinary examination should be made in order to determine whether there are evidences of nephritis or of so-called lithæmic urine. A careful search should be made for all possible reflex causes, such as diseases of the nose, pharynx, and, perhaps, errors in refraction, also hepatic, intestinal and uterine diseases. Diseases of the urethra, prostate and bladder, very often participate in the causation of neurasthenia.

However, with only two exceptions, all the cases of neurasthenia that has come under my observation were lithæmic, accompanied with considerable functional derangement of the gastro-intestinal tracts, the stomach, the large and small intestines and associated glands, the liver, the pancreas and enlargement of the spleen.

I have never yet seen a case of neurasthenia that was not preceded by dyspepsia, nor have I ever seen a case of dyspepsia that did not secrete a very large amount of uric acid and manifest some nervous reflex phenomena.

Some individuals cannot digest sugar, others cannot digest starch, and very often we meet with patients who cannot digest either without much difficulty. Others again cannot digest meat during hot weather as well as other times of the year. We meet with another class of individuals who cannot digest eggs as well during summer as winter. All these peculiar weaknesses, when disregarded by patients, lead to functional disturbances of the digestive system, the production and absorption of toxins into the circulation, which irritates the nervous system, producing varied manifestations of nervous discord.

In the management of every case of neurasthenia, whether it be of simple, lithæmic or reflex in character, the hygienic and dietetic restrictions are of quite as much importance as the medical treatment. It is the case however, in my opinion, that the individuals suffering with this disease are very few that a reflex phenomena does not participate in the causation of many of its symptoms, and the reflex irritant is in nearly every case, I believe located in the gastrointestinal canal. When this is the case, it is nearly always lithæmic in character. I want to lay great stress upon the close relationship between gastrointestinal irritation, excess of uric acid and neurosthenia. When the former cause is present, I always find the latter. It is on these conclusions that I base my medical treatment of neurasthenia.

I begin by giving "melachol," a stimulating latative composed of sodium, nitrate, phosphate and citrate, this excels all constructive and reproductive functions more decidedly than any remedy heretofore compounded. I continue this remedy until the patient recovers, regulating the dosage so as to insure one but not more than two actions of the bowels each day; seminal emissions or the high state of sexual inclination induced by it, do not as might be expected, work against recovery. I began by giving a teaspoonful in a glass of vichy, &c. In addition to this, I prescribe $\frac{1}{60}$ or $\frac{1}{30}$ of a grain of Strych. Sulph. before meals. I prescribe this treatment for three or four days and watch the results. If the patient improves rapidly, I then continue the melachol in such doses as to cause at least two easy, feculent stools,

in the twenty-four hours. With the proper hygienic and dietetic management, this plan will commend itself in a large number of cases. If this treatment does not seem to have a happy effect, then I discontinue the vichy altogether and use nitro muriatic acid dil, 20 drops three times a day in a wine glass of water just after meals, taking care at the same time to continue the melachol; sometimes the acid will do best. Sometimes the alkali; it is however usually the latter. If neither the acid nor the alkali, with the laxative, cause improvement, or if they only cause a partial improvement, I resort to digestive substances or intestinal antiseptics, such as corrosive sublimate should be given in $\frac{1}{60}$ grain tablets every 4 hours. If the patient has difficulty in the digestion of nitrogenous substances, which is very often the case, evidenced by flatulence or discomfort, immediately after meals, I use sulphurous acid and phaselin before meals if the symptoms of indigestion appear an hour or two after meals, or if there be great flatulence. I repeat the sulphurous acid and phaselin, 15 drops of the acid in water and 10 grains of phaselin in two 5 grain tablets.

One Hundred Consecutive Abdominal Operations.

By I. S. STONE, M. D., Washington, D. C.

Prof. Clinical Gynecology University of Georgetown, Surgeon to Columbia Hospital for women. Gynecologist to Sibley Hospital. Honorary fellow of the Medical society of the state of New York. Fellow of the British Gynecological Society, ex-member of the Virginia Board of Medical Examiners, etc.

The following list embraces all Major Gynecological and abdominal operations performed by the author during sixteen months active surgical work prior to April 29, 1896. Nearly all of these cases were operated in Columbia Hospital. Some of the cases were inmates of my private hospital, others were treated in general hospitals or in private.

The above report shows a mortality of eight. Three of these cases were beyond help of any kind when the anæsthetic was administered. The mortality of the first half of the series is eight, the latter

fifty without a death. Perfect candor compels me to say that in two cases not here reported I gave an anæsthetic and opened the abdominal wall once for peritonitis from appendicitis and again for pyæmic abscess of the liver. The operations were not completed and should not be included in a report such as this.

By reference to the above table it will be seen that all operations for ovarian and fibroid tumors and appendicitis have resulted in recovery. Vaginal hysterectomies for sepsis and malignant disease. Extrauterine pregnancy, tubercular peritonitis, oöphorectomies, for diseases other than sepsis, have all resulted in recoveries, making 92 recoveries and 8 deaths.

The larger number of deaths occur in neglected pus cases, or five in thirty-five cases. These were completed laparotomies in the worst class of cases known to the surgeon. One of these had a congenital structure of the bowel and acute

nephritis, another had only one kidney. Another had peri-nephritic abscess involving the appendix vermiformis, and pelvic organs, leaving only two cases which were possibly in reach of surgery.

One death occurred from nephritis in a case where the fibroid uterus had been removed per vaginam by morcellation.

Another death resulted from removal of a septic uterus through the abdomen. The patient was profoundly septic when operated upon and she finally died of pneumonia. Finally the case of bowel obstruction died because she was at no time able to take an anæsthetic that the operation might be completed. It is quite possible to further elaborate statistics such as these, but the author prefers for the present to merely add this quota to that of previous reports, without further comment upon the various complications, the methods used, or the final condition of the patients.

	Diseases	Operation	Date	Drainage	Result	Remarks
1. C.	Myoma uteri. Size of orange. Doub. hydrosalpinx.	Salph. oophorectomy.	April 30, '94.	No.	R	
2. E.	Ov. Tumor, 10 lbs.	Ovariectomy.	May 9, '94.	Yes.	R	Drain 24 hours. Parietal adhesions. Operation 15 minutes.
3. W.	V. Hernia.	Closure of sac. Omental adhesions.	May 16, '94.	No.	R	Tedious dissection of old cicatrix and adhesions.
4. A.	Pelv. sup.	Coeliotomy. Remove pus sacs.	May 19, '94.	24 hrs.	R	
5. O.	Pelv. peritonitis.	Coeliotomy. Remove pus sacs.	May 23, '94.	Yes.	R	Uterus covered by bladder bowel, and required long tedious dissection to discover it.
6. C.	Ext. Ut. Preg.	Opening and draining sac. Remove contents.	May 30, '94.	Yes.	R	
7. R.	Gon. pelv. Per.	Extirpation of pur. adnexa.	June 6, '94.	Yes.	D	Intestinal congenital obstruction of large bowel. Nephritis.
8. P.	Ov. Tumor. Twisted pedicle.	Ovariectomy.	June 10, '94.	Yes.	R	Sudden pain. Peritonitis. Bowel obstruction. Prompt operation and cure.
9. P.	Appendicitis.	Op. abscess and drain.	June 21, '94.	Yes.	R	No attempt to remove appendix.
10. D.	Pelv. peritonitis.	Remov. pur. adnexa.	June 23, '94.	Yes.	R	Uterus everted and washed out; flushing cornua before tying.
11. S.	Tubercular pyosalpingitis.	Remov. dis. adnexa.	June 27, '94.	Yes.	D	Snock; suppression of urine; one kidney entirely disorganized; tubercular ureter tightly plugged; heart (brown) atrophy. Operation 11 minutes.
12. M.	Ov. Tumor.	Ovariectomy.	July 18, '94.	Na.	R	
13. B.	Retroversion Ovarosalpingitis. Sup.	Remov. adnexa.	Sept. 8, '94.	No.	R	
14. P.	Sup. Dis. adnexa.	Remov. adnexa, pus sacs &c.	Sept. 12, '94.	No.	R	
15. J.	Large pelv. ab.	Coeliotomy. Adnexa not removed.	Sept. 13, '94.	Above and below.	R	
16. G.	Pus in pelvis.	Coeliotomy. Pus sacs removed.	Sept. 26, '94.		R	
17. R.	Retro-version adhesions.	Coeliotomy. Ventrofixation of uterus.	Sept. 29, '94.	No.	R	
18. F.	Septic peritonitis Lymphangitis.	Coeliotomy. Enucleation of pus sacs.	Oct. 1, '94.	Yes.	D	Snock and peritonitis, &c.
19. W.	Sarcoma of ovary.	Coeliotomy. Tumor 5 lbs. Smaller left side ov. 1 lb.	Oct. 19, '94.	Yes.	R	
20. B.	Salpingitis. Adherent uterus.	Vaginal hysterectomy.	Jan. 23, '95.	Yes.	R	Formerly operated upon for pus; pain required present operation.
21. L.	Nephroptosis.	Nephrorrhaphy.	Jan. 30, '95.		R	
22. C.	Retroflexion. Salpingitis.	Double salpingo-oophorectomy. Hysterorrhaphy.	Feb. 2, '95.	No.	R	
23. R.	Pelv. abscess. Pyosalpingitis.	Coeliotomy. Remove sup. and diseased adnexa.	Feb. 6, '95.	No.	R	

	Diseases	Operation	Date	Drainage	Result	Remarks
24. L.	Bowel obstruction.	Artificial anus. Colotomy.	Feb. 3, '95.		D	Cause of the obstruction not relieved owing to critical condition of patient; probably appendiceal abscess.
25. McC	Ov. cysts filling pelvis	Coeliotomy.	Feb. 14, '95.	No.	R	
26. W.	Pelv. peritonitis.	Coeliotomy. Bowel much injured during removal of pus sacs.	Feb. 16, '95.		R	Fecal fistula; slow recovery.
27. M.	Pus in pelvis.	Coeliotomy.	Feb. 20, '95.	No.	R	
28. B.	Sepsis from abortion.	S. V. hysterectomy. pelvis full of serum. Thrombi numerous.	Feb. 23, '95.	Yes.	D	Patient died of septic pneumonia in three weeks.
29. H.	Dysmenorrhoea. Pelvic pain. Retroflexion.	Coeliotomy. Removal of cystic ovary. Ventro fixation of uterus.	Feb. 22, '95.	No.	R	
30. G.	Salpingitis and ovariitis.	Coeliotomy. Right ovary and tube removed. Left elevated and sutured in new position.	March 14, '95	Yes	R	
31. Y.	Pus in pelvis.	Coeliotomy. Double salph. oophorectomy.	March 16, '95	Yes	R	
32. W.	Pus in pelvis.	Coeliotomy. Adnexa removed.	March 20, '95	No	R	Operation 17 minutes.
33. E.	Ascites. Suspected malignancy of peritoneum. Numerous enlarged mesenteric glands (?)	Coeliotomy. Cyst sutured to ab-wall.	March 23, '95	Yes	R	Patient made a good recovery; a great surprise, as condition was very bad.
34. C.	Pus in pelvis.	Coeliotomy. Remov. adnexa.	March 25, '95	Yes	R	
35. M.	Pus in pelvis.	Coeliotomy. Remov. adnexa.	March 26, '95	Yes	R	Large quantity of pus of tarry consistence and color.
36. C.	Pelv. peritonitis Patient very septic.	Coeliotomy. Remov. pus sacs.	March 29, '95.	Yes	D	Died of uremia; immense purulent collection half way to umbilicus.
37. M.	Renal and peri renal abscess.	Nephrotomy.	April 3, '95.	Yes	R	Temporary improvement; tubercular disease.
38. G.	Pus in pelvis.	Septic uterus and adnexa remov.	April 9, '95.	Yes	R	
39. M.	Small fibroid of uterus.	Coeliotomy. Rem. diseased and adherent adnexa.	April 17, '95.	No	R	
40. C.	Fibroid uterus.	S. V. Hysterectomy.	April 20, '95.	No	R	Tumor nearly to umbilicus.
41. R.	Septic salpingitis and ovariitis.	Coeliotomy.	April 24, '95.	Yes	R	
42. G.	Pelvic pain. Prolapse of uterus.	Rem. adnexa. Vag. hysterectomy.	May 1, '95.	Yes	R	Patient had undergone much previous treatment; prompt recovery.
43. W.	Appendicitis.	Laparotomy.	May 1, '95.	Yes	R	Two large glass tubes and gauze.
44. B.	Pyosalpingitis.	Vag. hysterectomy.	May 6, '95.	No	R	
45. C.	Tumor of gall bladder.	Cholecisthotomy.	May 10, '95.	Yes	R	Large calculus removed from gall bladder.
46. B.	Puerperal abscess, extending from kidney to pelvis.	Coeliotomy. Partial rem. of pus sacs.	May 11, '95.	Yes	D	Patient had perirenal abscess before delivery; extensive tubercular disease in addition to puerperal infection.
47. P.	Pus in pelvis. Fibroid of uterus.	Removal of uterus tumor and adnexa.	May 14, '95.	No	R	Patient recovered without a hitch; difficult operation.
48. C.	Myo-fibroma uteri.	S. V. Hysterectomy.	May 15, '95.	No	R	Tumor four pounds.
49. T.	Retroversion uteri. Cystic ovary.	Hysterorrhaphy. Rem. cystic ovary.	May 15, '95.	No	R	
50. W.	Myo-fibroma uteri.	Vag. hysterectomy morcellation.	May 15, '95.	Yes	D	Patient died of uremia ninth day; suppression 8 days.
51. S.	Pus in pelvis.	Coeliotomy. Removed adnexa.	May 18, '95.	No	R	
52. R.	Tumor of gall bladder.	Cholecisthotomy.	May 22, '95.	Yes	R	Eighty small gall stones.
53. E.	Retroversion. Pain in ovarian region.	Hysterorrhaphy. Removed right ovary.	May 25, '95	No	R	
54. D.	Sarcoma uteri.	Vag. Hysterectomy.	May 25, '95.	Yes	R	Still remains free from recurrence
55. H.	Nephroptosis. Gastric and nervous symptoms.	Nephrorrhaphy.	May 27, '95	Yes	R	Gained 25 pounds; looks 10 years younger.
56. W.	Pyosalpingitis.	Adnexa removed.	May 29, '95	No	R	
57. C.	Uterine fibroid. Double Hydrosalpinx.	Coeliotomy. Remov. appendages.	June 1, '95	No	R	
58. L.	Retroversion. Pelvic pain.	Alexander's operation.	June 5, '95	No	R	
59. W.	Appendicitis.	Laparotomy.	June 10, '95	Yes	R	Providence Hospital.
60. J.	Pus in pelvis.	Coeliotomy. Removed pus sacs.	June 15, '95	No	R	
61. W.	Pus in pelvis.	Coeliotomy. Exploratory.	June 19, '95	Yes	R	Operation not completed; thought to be pyemic.
62. L.	Nephroptosis. Gastric distress.	Nephrorrhaphy. Loin incision.	June 27, '95	No	R	Second attempt; first operation not a success
63. D.	Retroversion. Ovarian prolapse.	Hysterorrhaphy.	Nov 16, '95	No	R	Patient greatly improved; is well of nearly all symptoms.
64. L.	Retroversion. Uterine prolapse.	Hysterorrhaphy.	Nov 20, '95	No	R	Cured
65. Q.	Appendicitis.	Laparotomy.	Nov 15, '95	Yes	R	Cured
66. A.	Nephroptosis.	Left Nephrorrhaphy.	Dec 4, '95	Yes	R	Right side may require operation
67. E.	Tubercular peritonitis.	Coeliotomy. Omentum greatly involved.	Jan 15, '96	Yes	R	Finally died of general tuberculosis some months later

	Diseases	Operation	Date	Drainage	Result	Remarks
68. L	Nephroptosis.	Nephrorrhaphy.	Jan 20, '96	Yes	R	
69. P	Sarcyoma uteri.	Vag. Hysterectomy.	Jan 20, '96	Yes	R	Hemorrhage on fifth day; Tedious recovery; symptoms of metastasis in the breast
70. M	Tubercular peritonitis.	Coeliotomy. Several quarts of sero pus removed.	Jan 22, '96	Yes	R	Patient has every appearance of continued tuberculosis
71. B	Retroflexion. Cystic and prolapsed ovaries.	Hysterorrhaphy. Double oophorectomy.	Jan 25, '96	No	R	
72. W	Fibro uteri. Pus in pelvis.	Exploratory section and thorough drainage.	Jan 29, '96	Yes	K	Pus sac sutured to abdominal wall
73. D	Pyosalpingitis and ovaritis.	Coeliotomy. Double oophorectomy. Removed appendix. Complete enucleation without rupture. Appendix Rem.	Jan 29, '96	Yes	R	Intravenous transfusion; rapid recovery afterward
74. D	Pus in pelvis.	Coeliotomy. Careful operation. No rupture. Erase.	Feb 1, '96	No	R	Perfect result
75. B	Pus in pelvis.	Coeliotomy. Operation same as above.	Feb 1, '96	No	R	Same result
76. W	Pelvic pain and peritonitis.	Exploratory coeliotomy. Only adhesions found.	Feb 12, '96	No	R	Cysts of ovary excised; adnexa not removed
77. C	Salpingitis. Retroversion.	Coeliotomy. Ovary of one side only removed. Hysterorrhaphy.	Feb 12, '96	No	R	Patient had local pain; one appendage not removed
78. K	Pyosalpingitis. Retroversion.	Coeliotomy. Adnexa removed. Vent. fix.	Feb 26, '96	No	R	Perfect result; Erase
79. M	Tuberculous peritonitis.	2nd. coeliotomy on same patient.	Feb 29, '96	Yes	R	Flushing, drainage
80. K	Myoma uteri.	S. V. Hysterectomy. Baers operation	Feb 29, '96	No	R	Tumor to umbilicus; weight five pounds
81. M	Nephroptosis. Gastric pain and distress.	Nephrorrhaphy	Mar 4, '96	Yes	R	Cured
82. W	Appendicitis.	Laparotomy	Mar 4, '96	Yes	R	Cured
83. M	Perforation of gall bladder.	Laparotomy Removed gall stones Separation of many adhesions Obliteration of gall bladder	Mar 7, '96	Yes	R	A gall stone had caused direct communication between cystic duct and jejunum
84. W	Myoma uteri.	S. V. Hysterectomy Baers operation	Mar 14, '96	No	R	Tumor reached the umbilicus
85. Q	Myoma uteri.	Removal of appendages	Mar 14, '96	No	R	
86. T	Fibroid in uterus with pregnancy.	Exploratory section closure without removal	Mar 11, '96	No	R	Patient may need a Porro operation
87. B	Large cystic ovary.	Coeliotomy One ovary removed	Mar 25, '96	No	R	Patient had melancholia afterwards, but promises a good recovery
88. G	Tumor of gall bladder	Cholithotomy Liver and kidney both prolapsed	April 4, '96	Yes	R	Patient up in a week; many small stones removed
89. D	Prolapse of uterus and vagina.	Hysterorrhaphy, and plastic operations	April 8, '96	No	R	
90. B	Left cystic ovary Pus in pelvis.	Coeliotomy Rem adnexa	April 8, '96	No	R	
91. W	Myoma uteri.	S. V. Hysterectomy Baers operation	April 11, '96	No	R	
92. C	Hernia. rt. Ing.	Herniotomy Appendix removed	April 11, '96	No	R	
93. G	Pyosalpingitis.	Coeliotomy Adnexa removed	April 15, '96	No	R	
94. O	Old sinus. Bowel adhesions to uterus.	Vaginal hysterectomy	April 15, '96	Yes	R	The fistula has closed; patient well
95. M	Menstrual epilepsy.	Removal appendages	April 18, '96	No	R	One attack only since operation
96. G	Pyosalpingitis. Large quantity of pus in tubes.	Coeliotomy	April 20, '96	No	R	
97. H	Myoma uteri.	S. V. Hysterectomy	April 22, '96	No	R	Tumor above umbilicus 5½ or 6 lbs
98. C	Tubercular peritonitis	Coeliotomy Flushing & drainage	April 22, '96	Yes	R	Symptoms of general tuberculosis
99. G	Nephroptosis.	Nephrorrhaphy	April 23, '96		R	Patient promptly relieved of gastric distress, vomiting and neurasthenia
100. T	Ovarian tumor, 25 pounds.	Uncompleted operation Sac sutured to abdominal wall and drained	April 24, '96	Yes	R	Patient very old and weak; tumor everywhere adherent; could not be removed

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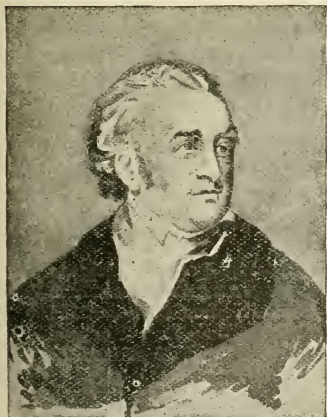
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THE
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Were it possible to call again to earth, clothed in the flesh, the majestic forms of Hippocrates, Celsus, Galen, and others, around whom as disciples the students clustered with awed countenances and bated breath, to catch the words of wisdom flowing from their lips, the very incarnation to them of earthly dignity, and in their appearance in public regarded as half human, half divine, and place them side by side in comparison with the words of great medical leaders of to day, in point of dignity, viewed in the light of externals only, the ancients would profit by the comparison. More defence and consideration was shown them in their day; more honor attached to their position in the social scale; and, what was true of the leaders, was also true in degree, of the rank and file of the profession then as now.

If we seek to catch the essence, as it were, of the inspiration that seemed to permeate their beings and mirror itself in their demeanor, who will find it a rejection of the civilization of the times, and not to greater learning. What more dignified peoples, for instance, ever inhabited the earth than the ancient Romans and Greeks. Dignity in them was carefully cultivated product of conquest or militarism, and heroic mythology with which all the people were imbued.

The conditions surrounding our people, on the contrary, are almost diametrically opposite. Instead of militarism, which brings to the surface the combative, egotistic, haughty and tyrannical elements of our nature, we, under the leveling influence of the great idea of the "Brotherhood of Man," are rapidly though almost unconsciously narrowing the gulf between us and the laity. We are culti-

vating humbleness of spirit instead of egotism, pride and tyranny; we are in fact, as well as in our demeanor, the servants of the people, and they, recognizing the situation are accepting the sacrifice at our hands, and are regarding and treating us as such.

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A POINT IN ASEPTIC SURGERY.

At the risk of hearing the merry tinkle of the castanet bell we venture to reiterate a point which seems of prime importance in aseptic surgery. For it is only by emphatic repetition that facts are forced home, and the medical journal is the New Testament of medicine for the graduate.

Of course aseptic skin and operators' hands and instruments and dressings are pre-supposed. To proceed with an operation with such essentials neglected would be like washing clothes in a mud-puddle. Sponges are best avoided. Fragments of sterilized gauze are germ-free and absorbed. No moisture should be introduced into non-suppurating wounds—those wounds made by the surgeon. Above all the injunction of the commander to his soldiers "keep your powder dry" should be observed as modified—*keep your wound dry*. Exuding blood forms a choice cutter medium for stray germs. Much time may be profitably spent in checking its flow completely. Tampons of sterile gauze should be employed freely for pressure and for removing every vestige of blood clots. They should be removed and renewed until every trace of oozing ceases. Then let the wound be closed with sutures of aseptic gut, dressed carefully with the usual aseptic materials, and neither need be touched again until completely healed, Time, from one week to a month.

Such, according to Prof. Macewen, are the precepts followed in the old home of Lister.

RATIONAL THERAPEUTICS.

It is a patent fact, of which all regular physicians are painfully aware, that homoeopathy has strong attractions for the laity, especially,—and this makes it the more painful, to that portion of it that furnishes to the average practitioner, the greater part of his financial support and social enjoyment,—the people, in other words, who are worth having for patients.

And these people are not to be blamed for their preference, since they, like ourselves, are constantly trying in all ways to avoid the various disagreeables of life; and when it is considered that in the vast majority of cases, a consideration of the fundamental principles of the school he represents does not enter into the question of choice of a physician, so much as chance, personality and therapeutic methods, it is to be wondered at that these men retain a hold that is marvelous, considering the inefficacy of their therapeutics? They have learned one thing well, the curative power of nature, and how to rely upon it. How may we profit by the lesson thus taught us? How may we check these defections over to the enemy of our choicest clientelage? By eliminating from our therapeutic methods what is disagreeable, unnecessary and faulty, especially in the treatment of acute disease. In other words, practice rational therapeutics.

It is not rational practice to give a patient vile compounds, if the same therapeutic effect can be obtained by giving its active principle in minute dose and tasteless form. It is a fatal mistake in the light of our present knowledge. It is not rational therapeutics to give massive doses when we now know that the small dose frequently repeated until the desired effect is obtained, then given often enough to maintain the effect, is more safe, more pleasant, more effective. Finally, it is not rational therapeutics to allow prejudice to prevent us from using what is good in any method of treatment of disease under the canopy of Heaven, that will cure our patients most speedily, pleasantly, and with a minimum of peril from drugs.

Let us be physicians first, *Pathists* afterwards; study all methods and glean only the pearls of truth that they contain.

You may swallow a little granule of quassine, 1 125 m. g., as pleasantly and as skeptically as a homoeopathic infinitesimal, but crack it with our teeth, and you have a profound demonstration of its potency. The same of strichnine and others. These new methods are making wonderful headway, and will prove our salvation.

DO YOUR DUTY.

Prejudice and sloth are two of the great obstacles to progress in the healing art. These truths are never more clearly demonstrated in any department of medicine than in that of gynaecology.

The class of diseases that fall within its province are of so weighty a nature as concerns our civilization, so intimately bound up with that most important of social institutions—the family—that although the relief of suffering should be the immediate, human and laudible incentive to action on part of the physician, there should be a yet more lofty, nay, patriotic motive to prompt him to restore to the family a being, in the majority of cases for the nonce wholly incapacitated for its responsibilities, at a time, too, when it most needs the guiding hand at the helm. *The mothers of this nation are its mightiest bulwarks.* Much might be written upon the diseases peculiar to women as a cause of her rebellion against the existing order of things.

The prejudice referred to above exists in the minds of a great mass of medical practitioners who believe, in the first place, that a leucorrhoeal discharge signifies nothing more than an asthenic condition of the pelvis blood vessel walls; a weakness; a catarrh, regarded in the same sense as catarrh of the nasal passages; in other words a simple matter to be put off with tonics and douches, and if they will not be content, then the universally resorted to, but delusive, glycerine tampon, *irrespective* of existing pathological conditions. Indeed the great mass of medical men are not competent to recognize pathological condition in the pelvis. In diagnosis the finger is the eye of the gynaecologist, but it becomes an eye only after a long and severe course of training. To distinguish between a prolapsed ovary, enlarged tender sacral lymphatics, pyosalpinx, ovarian cysts, or abscess in

the recto-vaginal pouch, flexions and fibroids, salpingitis, ovaritis, broad ligament cysts, haematoma; tubal pregnancy, metritis, endometritis in its various forms, and even cervical lacerations, among the more common affections, is not an easy matter, but that does not lessen the responsibility of the attendant. If he is not especially trained for this work, he should in the presence of a leucorrhoeal discharge, urge an immediate examination of his patient at the hands of a competent gynaecologist, as it is at the earliest stage of any pelvic disease that the most can be done for it. Instead of doing this the usual plan of operations springing from various motives, is tonics, astringent douches, glycerine and medicated tampons, all palliatives and good in their way, *but in presence of pathological lesions*, absolutely harmful by the false sense of security they confer; these means almost never cure; depletives like hydragogue cathartics and glycerine preparations lower blood pressure temporarily, therefore temporarily relieves, but cure will not come that way, and a cessation of this method of attack ensures a return of all the symptoms, usually in an aggravated form until the case becomes a discredit to the attendant and indirectly to medicine. In this way an endocervicitis starting from a slight or serious laceration, or from a post gonorrhoeal infection, from a long forgotten "clap" in the husband, will gradually, but surely, in despite of all these measures, assiduously applied, spread upward by continuity, involving the endometrium, and eventually the salpingeal lining, always with leucorrhoeal accompaniments. Small matter it may seem, but this kind of process furnishes the hospitals of our land with a tremendous proportion of its operative cases. An early perineorrhaphy; would have saved that terrible case of proclitania. An early trachelorrhaphy and cervical curettment would have saved that fatal case of pyosalpinx; an early curettment would have saved that fatal case of septicaemia, a diagnosis and early operation years ago would have saved this case of strangulated dermoid cyst, and so it goes. Unwillingness to give up a patient, or to acknowledge incompetency, or properly to prepare for the supervision of these cases, costs hap-

piness and 2 lives. Sad indeed to contemplate.

THE AMERICAN PUBLIC HEALTH ASSOCIATION AND BUFFALO'S SANITARY TRIUMPH.

The American Public Health Association was organized in 1872 for the purpose of inaugurating measures for the restriction and prevention of contagious and infectious disease, and for the diffusion of sanitary knowledge among the people.

It has grown in a few years from a small society of sanitarians to the largest public health Association in the world, embracing three countries—the United States of America, the Dominion of Canada, and the Republic of Mexico.

It very appropriately held its meeting at Buffalo, N. Y., this year. Buffalo deserved this honor, for she has gained for herself the enviable reputation of being the healthiest city of her size in the world. She has diminished her death rate from 23.48 per thousand, in 1891, to 13.95 per thousand in 1895, and for the first six months of this year the death rate has been but 11.67 per thousand.

An analysis of the cause of this decrease in mortality in a city which is growing so rapidly is of interest.

In 1892 Buffalo was granted a new charter, which, among other improvements created a Department of Health, with the Mayor, the President of the Board of Public Works, and the Health Commissioner, members of the Board of Health. The charter charges the Health Commissioner with a general supervision over the entire department.

Dr. Ernest Wends was appointed to the office of Health Commissioner, and it is to his untiring energy and perseverance that Buffalo now holds the respect which is due her among sanitary men.

Dr. Wends thus defines the purpose of a health department: "The public health—the health of the community—is only the health of its individual members, and health is only that condition of well being, well feeling and well doing of each man, woman and child, which enables him and her and it to enjoy pleasure and communicate it to others—to be happy and to make others happy. It is our self ap-

pointed office to point out the way that leads to this castle of delight, our self imposed duty to see that ignorance, indifference and inaction do not hinder those who aim to reach the goal."

Many have been the reforms which have been introduced by him. School children have been better protected by remodelling at enormous expense the plumbing and allowing for more light, and better ventilation in all of the public schools. A department of bacteriology was introduced, where cultures of suspected cases of diphtheria are made and where the sputum of suspected cases of phthisis pulmonalis is examined at the expense of the city. A daily examination of bacterial contents of water obtained from public taps is also made. The water is also examined chemically by a city chemist from time to time.

Contagious diseases are reported by telephone at the expense of the city; houses are placarded for scarlet fever, diphtheria and small pox as a warning of danger, and such houses are also subjected to a medical and sanitary inspection; the schools are annually visited for the purpose of vaccinating such pupils who have not been vaccinated within five years; lodging houses and tenement houses are frequently examined; the premises of milkmen undergo a plumbing and sanitary examination; a systematic record of complaints, with name of complainant and comments, is kept. There is a registration of milk herds supplying the city; a veterinary surgeon certifies as to whether such herds are or are not free from tuberculosis.

The department has also adopted a supervision of the milk supply from its source at the dairy to the consumer; so soon as a contagious disease, like scarlet fever, is found in one or more families on a milkman's route, the case is investigated.

Buffalo is also one of the few cities which disposes of its garbage by cremation.

In view of these various reforms in sanitary methods there is little wonder that Buffalo should enjoy the fruits of her judicious labors, and we congratulate Dr. Ernest Wends and his able staff of assistants for the good work which they have performed.

THE LIMITATION OF TUBERCULOSIS.

There is a cloud which overspreads our land through which the kind rays of the sunshine of hope do not penetrate.

The ravages of cholera and allied plagues are being gradually eliminated, because of the applied knowledge of sanitary measures, but an enemy far worse than "grim visaged war" is ever with us, assailing humanity, and leaving destruction and sorrow in its path.

Tuberculosis is impartial as to its victims, embracing, in its cold, clammy and unwelcome grasp, the old and the young, the prince and the pauper, the North American Indian and the African negro.

The greatest medical minds are energetically concentrating their best thoughts in combating the dread disease, but despite the many curative agents which have been advanced against it, tuberculosis remains with us, having lost none of its virulence.

Koch's tuberculin has been tried and found wanting; Maragliano is experimenting on the lines of serum therapy, but the results thus far have been uncertain. Meanwhile we see thousands afflicted and dying.

If we have no specific treatment for tuberculosis we can still exterminate the disease and thereby prevent it from spreading.

To use a political expression, there should be a campaign of education. The public must be impressed by means of tracts of the contagiousness of tuberculosis, and having been taught thus far, must be further instructed how to avoid it.

The Boards of Health of municipalities and towns should cause to be enacted ordinances preventing the furtherance and spread of the disease.

Since June 15th, 1895, all cases of tuberculosis occurring in the practice of any physician in the city of Buffalo must be reported to the department of health. On receipt of such a notice a circular of information is sent to families or those in charge of patients giving strict rules as to sanitation, etc. In that city at the request of the health authorities the street railway company has posted in all of its cars signs reading, "Spitting on the Floor of this Car is Positively Forbidden," for in the bacteriological examination of the

sputum taken from the floors of street cars many tubercle bacilli were found.

Further, so far as it is possible, the isolation of tuberculous patients from those not afflicted should be afforded by the city or county erecting consumption pavilions, where the patients may have good, humane and scientific treatment.

What does the State owe the poor tubercular patient, and what should a poor tubercular patient expect from the State?

1. An escape for them from their miserable surroundings, where they are not allowed the luxury of good treatment and nursing.

2. A protection to their relatives and attendants, so that they too may not fall victims to the disease.

The State should erect sanitariums in mountainous districts and give the poor the same climatic advantages enjoyed by the rich.

Hospitals have wisely been provided by every State for the retention, care and treatment of insane patients. This is beneficent and humane when we reflect from of evolution from a Bedlam. The insane patient is cared for and treated by the State because as one insane he is a danger to himself and a menace to society.

It is odious to compare the poor victim of tuberculosis to one insane, but there is a similarity in what should be the duty of the State in either case. If the insane patient is a menace to society his malady is not contagious, but the tubercular patient is the innocent medium by which his disease is transmitted to others. Isolate him in such environments where he can best resist and fight the tubercle bacillus within his body, and where can this battle better be waged than in the mountains amid the whispering pines.

THE SPECIALIST AND THE GENERAL PRACTITIONER.

It is not uncommon to see the special practitioners referred to disparagingly and unjustly criticised in our medical literature. The authors of these articles must have been unfortunate in coming in contact with some unworthy of the title of specialist, or they must have been too narrow minded to appreciate one of the

elements which make the *fru de saide* practice more nearly perfect and satisfactory than it has ever been in the previous history of medicine.

In referring to specialists we refer to the men who have taken the pains to acquire a broad culture and scientific training, and not the man who calls himself a specialist to draw attention from the fact of his ignorance of all branches of medical science. The post graduate schools are turning out so many of the latter kind of men that if the easy methods of manufacturing "specialists" is not soon checked the term will become an appropriate epithet.

To acquire sufficient knowledge of one of the several distinct branches of medicine to entitle one to honorable distinction as a specialist he must spend at least two or more years of hard work under the most favorable opportunities after he has had several years study and practice in general medicine.

The poorly qualified men who are turned out as specialists in six weeks to six months throw discredit upon the smaller body of honest, conscientious workers who have thoroughly prepared themselves.

The broad minded and well qualified general practitioner is not only tolerant of the scientific student of the special branches, but he is glad to be relieved of the care and responsibility of the few cases requiring delicate operations or great technical skill. From the nature of his busy life he cannot keep himself well qualified to treat the very intricate and unusual cases that are met with only a few times in the life of the average family physician.

What we greatly need is a uniformly high standard for both specialists and general practitioners, and then there will be no conflict between them. The better the general physician the more certain is he to recognize the usefulness of the well educated specialist in his legitimate field.

THE MONTREAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The fact that the British Medical Association is to meet in Montreal the coming year should arouse the interest of the profession of the United States to utilize

the occasion to create a better feeling among the members of the profession of both countries. We should try to become well acquainted with our English cousins and at the same time show them by our treatment of them that the medical profession of the new world contains a larger proportion of gentlemen than they have been in the habit of crediting us with.

The science of medicine cannot be confined by national boundary lines, but it is as broad as the world, as extensive as humanity itself. We should cast off any narrow or provincial feeling that we may possess, and we should eliminate from our profession the petty prejudice which occasionally crops out towards our English brethren, and think of them only as neighbors working with the same high and noble purposes as ourselves. We should be magnanimous and treat them as our guests, giving them generous and hearty greeting. A liberal, fraternal greeting which should be extended to the members of the British Medical Association, on this side of the Atlantic, will go a long way towards correcting many misconceptions which still linger in the minds of many Englishmen.

POLITICS IN MEDICAL JOURNALS.

We note that in a recent number of an eastern medical monthly about every fourth article deals exclusively with the financial question of the present political imbroglio. A mixture of medicine and politics is so incongruous that it reminds one of the questionable taste of the man in the restaurant who called for a meal of frankfurters and charlotte russe with sour-kraut and ice-cream for desert.

Whatever may be the political complexion of a medical editor's mentality, it would appear somewhat unnecessary to raise a cyclonic emeute in the minds of a reader who is pining only for pills—who is thirsting not for knowledge of William the "anarchist" or William the "suppet of the plutocrats," for he gets all that in his "great daily," but whose soul yearns for the "latest approved" method of lassoing the festive tubercle bacillus or asphyxiating the omnipresent pyogenes aureus.

While the comprehension of such reader may stretch from the contempla-

tion in the daily press of anything from a 50 to a 200 cent dollar, he commonly desires in the medical journals some reasonable adherence to the text; a sermon devoted to the medical gospel and not a lenteric discharge of political prophecies.

He is willing to eschew in his medical columns per caricatures of opposing candidates in favor of penpictures of the diseases he combats. He is willing to forego the merciless roasting of opposing political leaders in favor of a record of some merciful method for allowing suffering. In fine, he is willing to omit the vengeful expose of all the horrid crimes and inmate evils of the other political party in favor of a dissertation upon the best discoveries in diagnosis and therapeutics.

REMOVE THE CAUSE.

Should this Journal be asked to formulate a Golden Rule for guidance in the practice of medicine, it would be to "remove the cause." Of course this rule would not be applicable strictly to all disease processes, for, we have as often to deal with effects alone; but the rule is applicable to the great majority of cases that come to the physician's notice. The true physician is always looking for the cause, and rarely fails to find it, if given time; but there is a class of physicians who do not use their faculties as they should, and are usually supplied with a host of ready made formulæ for every possible phase of disease, and if one fails, to try another, until the patient either dies or gets well in spite of the treatment. Why is it that the most successful (not in a financial sense) practitioners employ the fewest and simplest drugs? Because they "remove the cause," and have abundant confidence in *vis medicatrix naturæ*. They have learned when *not* to give medicine. A greater art than to know *when* to give it. By the possession of this faculty the true healer may be known. Instead of trying to close the flood gates of a diarrhœa, he cures by opening wider still for a time, then closes them for a long rest, and when this rest is over, that section of the alimentary turn-pike is again in condition to perform its work. Of course this is but a very

crude and general illustration, but may serve to fix attention, more especially that of the younger physicians—the beginners—upon this idea.

Therefore, gentlemen, in every case that comes to your notice, get squarely down to the bed rock of your case; persistently and tirelessly search for the cause. Thoroughly understand the conditions with which you have to deal, then apply your knowledge of therapeutics, practically, scientificall, but always if removable, "remove the cause."

THE MOSAIC LAWS.

Medicine is again reverting to the theories and doctrines as advanced by Moses to the ancient Israelites. Moses may be considered the father of medical police and of public hygiene, for he gave to his people the Mosaic laws, a better guide to health than which has not as yet been written.

What the ten commandments are to the spiritual welfare and morals of a community, the Mosaic laws should be to its physical wellbeing.

These laws forbid the marriage of kindred, and speak of the situation of cemeteries, time of burial, and the isolation of the sick. There are strict regulations as to the kind and mode of the preparation of food, the slaughtering of animals, and precepts as to the admissible animals and their modes of death.

The foundation of hygiene, or preventive medicine, as understood today is laid upon these simple doctrines.

In the dark and middle ages, when man reasoned nothing from a physical basis, but attributed all phenomena to a supernatural agency, either heavenly or diabolical, the masses reaped the seeds of their ignorance. Plagues and pestilences ravaged throughout the length and breadth of Europe.

In vain were exorcisms, rings and amulets, the imposition of hands, engraved and sacred symbols, conjurations, consecrated herds and salt employed by the clergy, but the Jew, although he lived among foreign and hostile nations, did not forget the beneficent wisdom by which Moses influenced the Israelites, and, according to Richardson, he escaped from these epedenics as though he had a charmed life.

THE BUFFALO MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

This Association, the membership of which, in addition to that of the United States, is composed of delegates from our sister Republic—Mexico—as well as from the Dominion of Canada, held its Twenty-fourth Annual meeting in the city of Buffalo, N. Y., September 18th, 1896, with every State across the border of the Rio Grande represented by one or more notable scientists.

Of our own country, among the States not represented was Alabama, Florida, Virginia, Texas, California, Utah, and one or two other States of the far west, and what Canada lacked in quantity was certainly well represented by the quality of her members who were in attendance. The entire membership present aggregated about 200.

Viewed from any standpoint the meeting was probably as representative and important as could possibly have been expected these stringent monetary times.

Simultaneously not less than two other associations, national in character, beside the Democratic State Convention, were held in that "electric city."

The hall in which the Association convened is on the second floor of the magnificent Ellicott square building, was profusely and artistically embellished with the National colors of the three great countries represented, and save for the bad acoustic properties of the place the arrangements throughout the four days sessions were well nigh perfect.

The scientific proceedings were treated with unusual dispatch. This feature, in fact, characterized all the work of the Association.

A number of important resolutions were adopted aside from those of a purely technical nature, chief of which may be mentioned was the Association looking to a *Department of Health*, with the best man available that can be selected and placed at its head, and that the executive of this proposed branch of our government should be an appointed by the President of the United States, and retained in his position in future, irrespective of political preferment, elicited enthusiastic applause and the hearty, cordial endorsement of the Association.

The impetus given by the work of

these meetings of sanitarians certainly should be the means of widely diffusing hygienic knowledge to our people. Composed, as the Association is, of health officials, and other physicians of well known ability, and of the various other professions. The ministerial, legal, civil and hydraulic engineers, and teachers in sanitary and hygienic science are all represented as well as several of the industries are included among the list of its active members.

Indeed we may, *obiter dictum*, state, that among the numerous topics discussed from the anthropological, paludal, car sanitation, contagion and infection in its variety of forms and kind. Disposal of garbage, microbes, cremation, vaccination, drunkenness, pure water, forestry, nomenclature of disease, bacteriologic investigation, meat and milk inspection, etiology and prophylaxis of disease, and even the bicycle in its sanitary aspect, all received their due share of attention.

Among the disinfectants, Formic Aldehyde was very generally discussed.

The badge of the Association was quite elaborate. This was a combination of gold plaited metal and silk, tri-colored ribbon. Surmounting the ribbon was a symmetrically outlined mammoth bison, while suspended from the ribbon was a diamond shaped piece of the same beautiful metal, with a varied representation of the globe belted, and the word and figures, "Sept. 15, 16, 17, 18," denoting the days the meetings were held engraved thereon. On the four edges or borders of the diamond, the words, American Public Health Association, 1896, were artistically engraved.

Taken in its entirety the badge is the handsomest that has ever been issued to the Association.

The social functions and other courtesies extended to the Association by the Buffalonians, and the medical profession of the city, were numerous and hospital, which included among others a complimentary trip to Niagara Falls and dinner at the International Hotel.

The Twenty-fourth Annual meeting of the Association was a triumphant success, one long to be remembered by those fortunate enough to participate in its deliberations.

For the succeeding meeting no less

than eight cities issued invitations for the Twenty-fifth Annual gathering.

Patriotic sentiment prevailed and to the centennial city, Philadelphia, was accorded the honor, which will, in all probability, be held there during September or October, 1897.

OYSTERS AS A SOURCE OF SPECIFIC INFECTION.

It is only quite recently that much attention has been directed to the possibility of the transmission of specific infective disease, such as typhoid, by means of uncooked molluscs. Professor W. Conn in 1894, was able to trace in a very satisfactory and conclusive fashion the origin of a small epidemic of typhoid fever in the Wesleyan University, Connecticut, to the use of uncooked oysters which had been subjected to sewage contamination. The striking series of cases published by Sir William Broadbent in 1895, in which all ordinary sources of typhoid infection being excluded, oysters alone remained as the most probable means of its communication, have directed attention to the possible danger arising from consumption of these molluscs.

It will be unnecessary to give in detail the circumstances of the cases recorded by these two observers which have led them to the opinion that the disease was derived from the consumption of oysters. It is sufficient to state that "the exclusion of all the ordinary sources of typhoid fever, and the peculiar incidents of the disease in certain families; on those members only who had partaken of uncooked oysters, and the further fact that this consumption of oysters appears to be the only circumstance common to the cases, afford a very strong presumption for the view that these succulent bivalves were in some way means of conveying infection."

Since that time quite a number of observers have stated that they had cases of typhoid fever which they attributed, or at any rate now regard as possible due to the ingestion of oysters. The spread of cholera in certain parts of Yorkshire in 1893 has been ascribed by Dr. Klein and the inspectors of the Local Government Board to the consumption of oysters

which it is asserted had been subjected to the specific contamination. The attention not merely of the medical but also of the lay public having been drawn to the question, it has become very desirable that the subject should be investigated with the view of ascertaining the nature and the degree of danger involved, and how it may best be obviated.

ATROPHIC RHINITIS.

The treatment of this distressing condition is discussed by Dr. W. Peyre Porcher, of Charleston, S. C., in the New York Medical Journal for Aug. 29th, 1896. He concurs in the belief that this malady is the result of any inflammation, of whatever origin, which ends in a purulent discharge and which may or may not involve the accessory sinuses, but is sufficiently prolonged to wash away the epithelia and destroy the mucous membrane.

Dr. Porcher bemoans the opprobrium which is thought to rest upon the profession on account of the inefficiency of usual treatment of this stubborn ailment and offers his experience with one such case, in which a measure of relief was obtained, as a contribution towards a better understanding of the matter. After fruitless opening and irrigation of the antral and ethmoidal sinuses he saturated a pledget with a strong solution in glycerine of Iodine and Potassium Iodide with which he packed the space between the upper turbinate and the roof of the nose daily. The only result however, of this treatment seemed to be that the scabs, which still continued to form were more readily expelled. Why the treatment of atrophic rhinitis should be considered as an opprobrium to the profession is not clear. The opprobrium rests with parents and others who neglect treatment until an incurable malady is established. A physician can no more restore a shrunken turbinal than he can replace a withered arm or a collapsed eyeball. Instead of acquiescing in the opprobrium it is wise for the physician to expose the true state of affairs unreservedly to the patient and to point out the measure of relief that can be obtained by proper treatment. It should be clearly born in mind that a true atrophic rhinitis never

results from a hypertrophic rhinitis. The tumefaction of the soft tissues which precedes atrophy is not a true hypertrophy and the sclerosis which sometimes follows hypertrophy is not a true atrophy. True atrophic rhinitis follows a chronic puss-producing process and especially the purulent rhinitis of childhood. It is incurable and it is best to so inform the patient. There is, however, a line of treatment which will in every case check the further advance of the process, banish the odor and the crusts and secure a great measure of comfort to the patient and to his friends. Briefly this treatment, which is pursued in the great Philadelphia clinics of Dr. Joseph S. Gibb at the Episcopal Hospital and at the Polyclinic, is as follows: A tuft of cotton is twisted upon the end of a probe and saturated with Hydrogen Peroxide and with this all crusts are softened and removed and the whole nasal and post nasal cavities are wiped out. The nose is then sprayed with Dobells solution. This process is repeated several times until the nasal cavities and naso-pharynx are thoroughly cleansed. A powder is then insufflated consisting of Stearate of Zinc 75 per cent., Europhen 25 per cent. If a sufficient quantity is used, all parts of the nares and naso pharynx will be coated with the protecting and disinfecting powder. The treatment may be repeated two or three times a week. In addition to this the patient must keep the nares clear and clean by using an alkaline spray or douche two or three times a day. In the presence of this malady unceasing faithfulness is the price of comfort. Let treatment be omitted for a week or two at any time and the whole train of symptoms will speedily recur. Disease of the accessory sinuses is a different matter and calls for appropriate surgery.

APOMORPHIA AND HYSTERIA.

The writer discovered the benefits of this remedy in hysterical coma as the result of the benefits obtained by another physician by the use of ipecac in the same condition.

As his patient could not swallow ipecac he tried the apomorphia as a substitute. He injected $\frac{1}{16}$ grain of the hydrochlorate hypodermically, and the patient became conscious before he could put his syringe

away, vomited and remained normal until the following day, when the coma reappeared. The injection was repeated and that was the last of the hysteria. A simple tonic completed the cure.

A short time afterward a patient was attacked with asthma, complicated with hysterical symptoms, (pulling the hair, etc.) One hypodermatic injection of the same quantity of hydrochlorate of apomorphia jugulated both affections. In the latter instance the patient failed to vomit, and the face turned a scarlet red. At any rate she was up and all right the same day, to the surprise of myself and all who saw the case.

I would warn all who use this remedy to be certain the patient has a normal heart before injecting it. It is possible that in a weak patient, with a diseased or weak heart, great harm might result from so powerful a remedy.

In numerous instances the writer has seen it accomplish wonders in cases like those mentioned above.

RHINOSKOPIA MEDIA.

Under this heading Prof. Gustav Killian, of Freiburg, describes (*Münchener Med. Wochenschrift*, Aug. 18th, 1896,) a method of exposing, for examination and treatment, a portion of the nasal cavities, which is usually inaccessible. The spaces exposed by Dr. Killian's process are the olfactory areas and the deeper portions of the middle and lower meatus.

By anterior and posterior rhinoscopy portions of these spaces may be made accessible, but it is seldom that their full extent can be so explored. The middle turbinated body at its anterior portion hugs the septum closely, and it is seldom that we can obtain a satisfactory view beyond it. As the middle turbinal is a thin and not immovable bone lamella, and as the septum under pressure gives somewhat, Dr. Killian has found that a properly constructed speculum (duck-bill) can be introduced and dilated between these two structures, and that a fair view may thus be had of the important spaces beyond. He uses the Kramer-Hartman speculum with elongated, slender blades. Before introducing the instrument, the mucous membrane between which it is to

pass should be thoroughly cocainized. This not only relieves pain, but also secures a larger opening by shrinking the soft tissues. Having introduced the speculum with as little injury to the soft parts as possible, dilatation is begun with firm and increasing pressure, and as space is gained the instrument is advanced further between the turbinal and the septum. If mucus or blood accumulate the patient may keep the field clear by hawking and drawing the fluids backwards into his throat. The process should occupy considerable time.

By this method Dr. Killian claims to be able to see fully both walls of the olfactory space from the free edge of the middle turbinated body to the lamina cribrosa. The view of the superior meatus and turbinal is often obscure, but they may be readily explored with a thin, bent sound. The entrance to the sphenoidal cells is also readily seen and explored.

AMERICAN ASSOCIATION OF OBSTETRICIANS.

The American Association of Obstetricians and Gynecologists held its Tenth Annual Session, Sept. 22d, 23d, 24th, at Richmond, Va. The program of the Association embraced fifty papers nearly all of which were read.

Some valuable contributions were read and discussed by such men as Price, of Philadelphia, Davis, of Birmingham, McMurtry, of Louisville, Murphy, of Chicago, Ricketts, Hall and Reed, of Cincinnati, and a host of others.

Among the papers of greatest interest were Dr. Longyear's on the treatment of Puerperal Sepsis by injections of diphtheria antitoxin, and Dr. Murphy's on repair of blood vessels by suture. The latter paper shows the author's method of invagination of the proximal into the distal extremity of any vessel which has been severed by accident or design. Experiments upon animals prove conclusively the feasibility of Dr. Murphy's method, and he has in a few instances been successful in its application upon man.

A resolution was passed to increase the membership of the Association to one hundred and fifty.

Dr. J. W. F. Ross, of Toronto, was

elected President, and Dr. Geo. Ben Johnston, of Richmond, Vice-President. Dr. W. W. Potter, of Buffalo, is the Secretary.

BOOK REVIEWS.

A MANUAL OF CLINICAL DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL METHODS. For Students, Hospital Physicians and Practitioners. By CHARLES E. SIMON, M. D., Late Assistant Resident Physician Johns Hopkins Hospital, Baltimore. In one very handsome octavo volume of 504 pages, with 132 engravings and 10 full page colored plates. Cloth, \$2.50. Lea Brothers & Co., Philadelphia and New York. 1896.

There is no question but that Clinical Chemistry and Microscopy has received but little attention in the hands of hospital physicians and those engaged in general practice. This lack of interest can only be accounted for through the fact that these branches have hitherto been greatly neglected, both by American and European schools. The time is now at hand when "Diagnosis" is the password in medical science. The time is now at hand when the practice of medicine is becoming what it was long ago, but then unjustly called, a true science and art. An important point is brought out in the preface, when the author says that it is not rare to hear physicians say that they are too busy to conduct careful examinations of urine, sputum, blood, gastric juice, &c. To amend this negligence he recommends that the physician who is too busy to do these things should employ an assistant in his laboratory.

The first important subject discussed in this work is the blood. About 75 pages are devoted to this subject. Its color, odor, specific gravity, reaction, chemical examination of the blood, ingredients, &c.

The next subjects treated are the Gastric Juice and Gastric Contents, the Feces, and Sputum. Due consideration has been given these subjects.

The latter half of the work is devoted to the Urine. This is the most important chapter in the book. In this chapter the practitioner will find just what he wants: an every day description of normal and abnormal constituents of the urine, their quantity and mode of detection, &c., &c. The contents of this work are so plainly

set forth that the practitioner or student who has not had special training in such manifestations may nevertheless be enabled to obtain satisfactory results.

The work is abundantly illustrated with engravings and full-page plates in colors. The book is well printed and nicely bound.

A MANUAL OF MATERIA MEDICA and PHARMACOLOGY. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopoeia together with important allied species and useful synthetics. By DAVID M. R. CULBRETH Ph. G. M. D. Prof. of Botany, Materia Medica and Pharmacognosy in the Maryland college of Pharmacy. Lea Brothers & Co., Philadelphia and New York, 1896.

While it is very evident that there exists today a number of valuable works on materia medica, yet this one fills in a missing link, being the only one on this subject thoroughly adopted to modern class instruction in colleges of pharmacy. Its scope has been made sufficiently comprehensive to prepare students for the constant needs of modern drug business and will serve as a companion to the average pharmacist in his vocation. With this in view it treats of:

1. *All Official Drugs, Organic and Inorganic, included in our Pharmacopoeia, together with their Preparations, official and non-official.*

Of each enough is said to interest and furnish general information historic and otherwise.

2. *All Drugs once Official in Previous Editions of our Pharmacopoeia, but now Dropped.* While it is true many of them are no longer professionally prescribed, yet many are kept in stores and have a limited sale.

This is a nice feature of the book since no similar text book furnishes these combined data.

3. *Allied Species of Organic Drugs.* Oftentimes these frequently resemble the official species as to furnish possible admixtures and dangerous substitutions, consequently some of the spurious kinds most likely to be met with have been briefly described.

4. *Important Unofficial Synthetic compounds.* These form a great factor in our Drug stores and are growing every day.

The author has grouped the various substances according to their natural relations, giving the classification, name,

source, constituents, adulteration, preparations, manufacture properties, medical uses, doses and allied drugs. Dosage has been given only in the apothecaries system. Temperature has been expressed only in degrees of the Fahrenheit scale, because it is extensively used throughout the country. The *materia medica* of the animal, vegetable and mineral kingdoms are thus exhaustively and practically described, including the new and important additions with which organic and synthetic chemistry has increased the powers of the physician. The volume closes with sections on use of the microscope, poisons and antidotes, various useful tables, maximum doses, customary abbreviations and a very full index. The series of illustrations is exceptional for their number and beauty.

WATER-SUPPLY. By WILLIAM P. MASON, Prof. Chemistry, Rensseler Polytechnic Institute. First Edition. New York: John Wiley & Sons. 1896.

This book will prove of interest to several classes of men, quite widely separated in tastes and occupations; to the physician, who wishes to keep in touch with this particular phase of sanitary science but whose term does not permit of his undertaking such investigation personally; to the hydraulic engineer, whose professional duties prevent his sifting out from the mass of recent bacteriological and chemical results such facts as bear upon his specialty; to the water analyst, or the chemical student, who may seek to employ analytical methods widely used and largely based upon the report of the committee of the American Association for Advancement of Science; and finally, to the general reader, who, as a water consumer, feels a natural interest in the continually recovering water problem of the day. The work containing 104 pages and has a fine index. It contains many illustrations, is neatly printed and bound.

DIAGNOSTIC UNANALYSIS By M. D. HOGE, JR., M. D., Richmond, Va., Geo. M. West, Publisher 1896.

This little work contains 87 pages and has a good index. It will facilitate the study of Uninology, elucidate the various and perplexing question which are presented and decide what is really the condition of the urine; so that effective remedial measures may be applied.

TRANSACTIONS of the Association of American Physicians. Eleventh session. Held at Washington, D. C. Philadelphia. Printed for the Association. 1896.

This Association has again issued an interesting and valuable volume that will take an important place in literature. The papers, as usual, are pointed and the discussions spirited. The book is substantially bound, and makes a durable and attractive volume.

LITERARY NOTES.

The October number of Scribner's Magazine is strong in American subjects of immediate interest, including in its contents a powerful and satirical essay by E. L. Godkin on "The Expenditure of Rich Men"; a broad and thoughtful discussion of the great problems that underlie "The Government of Greater New York," by Col. F. V. Greene; a paper on the way in which "The New York Working-Girl" has organized to take care of herself; a sympathetic essay on the work of Olin Warner, the eminent American sculptor who recently died; and a description of the picturesque and romantic features of the Light-House system along the North Atlantic coast. The Americanism of this number in subject and in authorship is its most pronounced feature. It is a notable fact that there is not a single foreign contributor on the literary side of the number except Mr. Barrie and his remarkable serial.

The foreign element, however, is not neglected in the subjects of some of the articles. Mr. and Mrs. Blashfield open the number with a learned and picturesque account of the article and historical attractions of the famous Italian city, Siena. This paper is elaborately illustrated by a series of Mr. Blashfield's pictures, the whole article being a wonderful welding of artistic appreciation, historical research, and graphic description by artist and writer, equally skilful in pen and brush.

LIPPINCOTT'S MAGAZINE for October, 1896.—The complete novel in the October issue of Lippincott's is "The Brown Prince of Rexania," by Edward S. Van Zile. The prince visits America falls in love with a New York girl, is rescued,

and goes home to fight for his throne on news of his father's death.

"Bullwinkle, the History of a Poor Student," by Eliza Gold, is a longish short story or character-sketch with a good deal of humor and observation in it. The hero was an amazing variety of student, and it is safe to presume that Columbia College has seen few of his kind.

"Jim Bowers's Hoss" was a remarkable western animal, which brought its casual rider into an extraordinary western town and much trouble: Sydney Reid tells the tale. "Before the dawn" is a brief sketch by Elizabeth Knowlton Carter.

D. C. Macdonald gives a clear and satisfactory account of "England's Indian Army," especially the native troops,—Goorkhas, Sikhs, and Pathans.

"Russian Girls and Boys at School" are fully described by Isabel F. Hapgood. Alvan F. Sanborn writes of "The Quays of Paris" as one who knows them.

Under the heading "Shakespeare's Old Saws," William Cecil Elam shows how and why much of the popular speech of Virginia is that of the great dramatist.

Ellen Olney Kirk deals with "The Last Resort in Art,"—copying in the galleries of Europe. "Humanity's Missing Link," supposed to have been found lately in Java by Dr. Dubois of the Dutch army, is explained by Dr. Harvey B. Bashore.

"The need of Local Patriotism" is pointed out by Prof. William Cranston Lawton. George H. Westley writes of "Some Old Clubs," and William Ward Crane of "Fashions in Names."

The poetry of the number is by Celia A. Hayward, John Leighton Best, and Clarence Army.

THE ATLANTIC MONTHLY for October. —Five American Contributions to Civilization. A well-ordered and striking summary of the great results of American civilization—one of the most notable articles of the year.

The Political Menace of the Discontented. A study of the campaign and some of its deeper social meanings.

Marm Lisa. V.-X. The second of the three installments of a remarkable story.

Cakes and Ale. A study in older English literature.

The Spirit of an Illinois Town The

conclusion of this spirited Western novel.

The Imperiled Dignity of Science and the Law. The foolish way in which expert testimony is taken in court, and its demoralizing effect.

Mystery. A sonnet.

"'Tis Sixty Years Since" at Harvard, Delightful reminiscences of Dr. Hale's college years; changes since then.

Girls in a Factory Valley. Further life studies among operatives.

The Old Things. (Concluded.)

The Fate of the Coliseum. A narrative of the fate of this great ancient theatre.

Abandoned: A Tale of the Plains.

Winter. A sonnet.

Sunday in New Netherland and Old New York. A quaint historical study of colonial times.

Margaret Fuller in a New Aspect.

The French and the English Views of India.

The Columbian Fruition.

Men and Letters.—A New Department.

On coming Back. W. D. Howells.—The Poet and the Modern. John Burroughs. On Reading the Fiftieth Volume of Balzac. W. P. Trent.

Comment on New Books.

The Contributors' Club.

Charles W. Eliot.

Kate Douglas Wiggin, Author of "The Birds' Christmas Carol."

Agnes Repplier.

Mary Hartwell Catherwood.

John Trowbridge, Professor of Physics in Harvard University.

Lizette Woodworth Reese.

Dr. Edward Everett Hale.

Lillie B. Chace Wyman.

Henry James.

Rodolfo Lanciani, Author of "Ancient Rome in the Light of Modern Discoveries," and "Pagan and Christian Rome."

Batterman Lindsay.

Harriet Monroe.

Alice Morse Earle.

Boston and New York, Houghton, Mifflin & Co.

That long established and sterling magazine, The Living Age, presents in its weekly numbers the best fiction, the ablest essays, the most interesting bits of biography, adventure and travel, in a word, the most readable and profitable

contributions to foreign periodical literature.

Recent numbers contain, with much more equally good and interesting reading "Mrs. Meynell's Two Books of Essays," by George Meredith; "Recent Science," by Prince Kropotkin; "An Excursion in the Atlas Mountains," by Walter B. Harris; "Sir Henry Parkes," by A. Patchett Martin; "Some Curious Duels," by J. Cuthbert Hadden; "Thomas Henry Huxley," by Wilfrid Ward; "On an Old American Turnpike," by A. G. Bradley; "Through Touraine on Wheels," by Sir Herbert Maxwell; "Hjaltland," by Colonel T. P. White; "Charilaos Trikoupes," by James D. Bourtcher; "La Saisiaz in 1895," by A. Taylor Innes, and "Gustavus Adolphus," by Spencer Wilkinson. At least one short story, and selections of recent poetry appears in each weekly issue.

Information regarding "New Features" about to be introduced, with special offers to new subscribers, may be obtained by application to the publishers.

THE LIVING AGE CO.
Boston.

The Review of Reviews for October continues its admirable record of the Presidential campaign. In the July, August, and September number the Republican, Democratic, and Populist convention were reviewed, together with the careers of the nominees. In the October number the moment of the "sound money" Democrats, culminating in the Indianapolis convention, receives similar attention. No other publication in the country offers in a single number such a wealth of political portraiture, or so wide a range of cartoon illustrations. Every noteworthy phase of the canvass is fully and impartially presented. Material is gathered from every source and carefully digested.

Operative Technique in Appendicitis

Abstract of paper read at the meeting of the Mo. Valley Medical Society, Sept. 17th, '96 at Council Bluffs, Io., by Dr. C. C. Allison.

A small hollow organ placed in a dependent position with terminal blood supply, without a chance of collateral

circulation with its drainage exposed to the trauma of faecal residue, its cellular elements lymphoid in character and its constant bacterial fauna represented by the dangerous and prolific bacillus coli communis is plainly an easy prey to inflammatory outbreaks and nature's chance to establish harmless resolutions is necessarily meagre. The natural termination would therefore seem to be supuration. This is to say, surgical, although with drainage, tissue resistance and arrest of bacterial growth and colonization, the symptoms may ameliorate and the disease seem medical, yet this very termination leaves cicatricial, embers which clinical experience teach, are readily fanned into a recurrence which may terminate less favorably. The following pathological conditions determinate the operative steps.

1st. The early and the interval operations (without dense adhesion) require practically the same technique.

2nd. Operations for suppuration chances with adhesions.

3d. Opening of large abscesses with or without removal of appendix.

4th. Operation for genaral peritonitis.

In the first place the abdomen may be opened by separation of muscular fibres over the cæcum or by an incision to the right of the semi-lunar line of from one and a half to two and a half inches in length. Caecum is recognised by the longitudinal band which will guide the finger to its termination from which point, the appendix may be easily found. Or if the ileo-caecal junction be recognized, the appendix will be within an inch and a half of this point.

Ligature of mesentery, followed by dissection of the peritoneal cuff, chromatic gut ligature of the muscular coat and apposition of the inverted peritoneal tunic over the stump completes this part of the operation.

Dr. Danborn's idea of complete inversion of the appendix may wisely be practised in these cases. In the second or latter class, the abscess must be carefully located and the general peritoneal cavity protected by the careful packing of gauze about every side, after which the evacuation of the pus and the search for additional pus cavities with removal of the appendix follows. Disinfecting and sterilizing the stump, local sterilization of

the cavity and pockets by peroxide, bi-chloride sponging, or by dry cleansing is followed by drainage wicks placed deeply in the abscess cavity. Accurate closure of the wound with "waiting" sutures inserted finished the operation.

The third class represents the more serious condition of large abscess, more or less gangrenous appendix and friable gut. The abscess is best reached by an incision rather nearer the anterior superior spine than was described for class 1. Evacuation of the abscess is followed by the repeated alternate use of hydrogen peroxide and hot saline with sterile solution represents the modern means of cleansing the abscess cavity. Careful search for the appendix should be made and its removal accomplished, unless its attachments clearly imperils the protecting adhesions between the abscess and the peritoneal cavities. Drainage with gauze in the deeper and pelvic limitations of the abscess cavity brings us to the application of the external dressings. In some of these cases it will be found necessary to open the abdomen in the medium or left semi lunar lines for the purpose of excluding the possibility of slow leakage into the general peritoneal cavity just before the operation. This step adds nothing to the shock. It is conservative, and my own experience proves that at least two cases have been saved by this method within the present year.

Class 4 on general peritonitis, due either to early perforation with extensions of inflammation before limiting adhesions have formed is one of the most unpromising conditions within the domain of our work. Unless these cases are seen within 18 hours after inception they are practically hopeless and when the streptococcus is the prevailing germ, the desquamating peritonitis is always fatal. Evacuating the main abscess, neutralizing and sterilizing with hydrogen peroxide and large quantities of sterile solution, a search for additional pockets, counter opening and liberal through irrigation with free gauze drainage is all that should be undertaken. All agree that hot coffee enema immediately after the operation with strychnia in good doses and a minimum dose of opium will add to the chances.

The Lumbar Enlargement of the Spinal Cord.

At the recent annual meeting of the Mississippi Valley Medical Asso., a paper with diagram and table, by L. Harrison Mettler of Chicago, was read, wherein it was stated that the lumbar part of the cord was in a great variety of affections the most amenable in surgical interference. After a detailed account, based upon some personal observations, of the topographical anatomy of the lumbar enlargement, the author asserts that with such lessons as fractures hemorrhages, abscesses, and well-defined tumors, trephining, is not only justifiable but is absolutely called for. Before the operation is resolved to, however, a localization diagnosis must be made and made with the greatest possible accuracy. Our knowledge of the motor sensory, and reflex centers in this part of the cord, is today sufficiently definite to make such a diagnosis. A discussion of these centers in relation to symptoms, constitutes the principal part of the essay.

A transverse section of the cord through the lumbar enlargement presents the same picture that a transverse section of any other part of the cord does, with the exception however, of a slight difference in the arrangement of the tracts and of the absence of the cerebellar tract, the columns of Clarke and the direct pyramidal tract. The general functions of the tracts are pretty well known but for the purpose of localizing sharply defined lesions are of minor value or of value only when the lesion is a systematic and continuous one in contiguous parts of the cord. A knowledge of these facts and their respective functions is important, nevertheless, in diagnosing the anterior, posterior and lateral localization of the tumor as other defined lesion.

For surgical purposes, the segmental localizations (the cord being regarded as a series of superimposed segments with their respective nerve roots) are our best guides in regard to the motor disturbances, such as tumor, spasm, paresis and paralysis as symptoms of segmental involvement, too much stress ought not to be placed upon the mere anatomical subdivisions of the musculature of the lower extremities. Movements and groups of muscles rather than mere individual mus-

cles are represented by the centers in the cord. Sometimes a muscle has a double function, as the gluteus maximus; and probably very few muscles ever act alone or without a simultaneous and corresponding action of their antagonists. The situation of a muscle, oftentimes the result of special evolutionary development, affords no clue as to the situation of its central representation; for example, the sartorius, which is in relation with the extensors of the knee and is represented with some of those extensors in the third lumbar segment, generally escapes when the extensors undergo atrophy. The ilio-psoas is a single muscle in function but is represented by a group of cells which extends through the second and third lumbar segments. It is probable that many of these centers of the cord are brought into association and related activity by intersegmental fibres, all of which goes to show that the mere anatomical divisions of the muscles are not to be too rigidly considered in making a localization diagnosis.

The sensory disturbances such as hyperæsthesia, paraesthesia, and anaesthesia are not always so pronounced indicators of cord lesions as the motor signs but when they are well-marked they are apt to be more definite and decisive as a means of making a segmental localization diagnosis. Starting with the perineum, the area of anaesthesia gradually enlarges as the lesion travels upward in the lumbar cord. This is illustrated in the authors accompanying diagram. The area of insensibility includes, of course, the genitals, perineum and anus. The centers for the control of the bladder and rectum are usually affected together and it is pretty conclusively decided, are located in the last two segments of the cord. The sexual center is in all probability associated with them.

Certain vasomotor and trophic symptoms are not infrequent in myelitis of the lumbar cord. It is only in gross and extensive lesion as a rule, that these symptoms appear, because they are dependent upon injury of the central gray matter just back of the central canal.

In spite of the extreme difficulty in differentiating a lesion of the cauda equina in many cases from one of the cord whose related nerve roots pass through the cauda, some recent observa-

tions hold out the hope that some day it will be possible in all cases.

Thus it is shown that the lumbar enlargement affords the best location for surgical interference; its localizing centers are quite accurately known, at least sufficiently so today for purposes of surgical diagnosis; and in many instances, the character, progress and the situation of many of its lesions can be determined by its localizing symptoms.

Hygiene of the Eye.

Dr. Clarence R. Dupree in Jour. Am. Med. Association says: By failing to apply early for treatment, diseases often gain such headway that a cure cannot be made. Men, women and children are met with having eye affections which could have been remedied by early treatment. Neglect of the eyes in infancy is often the cause of poor eye-sight; the eyes should be protected from intense light, dust and atmospheric changes. The school work of children should be regulated by their physical development; the kindergarten system adopted until 10 years of age; by this method the eyes would be in a better condition to stand the work of the future. Lack of visual acuity and the pain and discomfort which frequently accompany it, is the cause for a large per cent. of children leaving school, the loss between primary and high school, from this cause is about 90 per cent.

Children often appear dull and stupid from this cause, and frequently punished for their supposed stupidity, when the real cause was exclusively defective vision and pain when using the eyes. The lessons in the grammar grades of the Public Schools are too long, as they require too continuous use of the eyes to memorize them. There should be more physicians on the school boards who would actively interest themselves in regulating the daily work of the scholars, the arrangements of desks, seats, ventilation, etc., also to arrange the studies of those physically weak, that they might be less arduous; these studies to be interspersed with physical exercise calculated to strengthen the body and relax the mind. The light should shine from behind and not into the faces of the

children; the walls painted some neutral tint to relieve the eyes from the glare of white walls. Each child should have an individual drinking cup, thus lessening the liability of transmitting disease.

Convergent and divergent squint *cannot be too easily corrected* by properly adjusted glasses, an operation should not be done until after the 6 or 7 years. The objective symptoms of eye strain, are, winking the eyelid frequently, inflamed conjunctiva, scales and crusts in and among the ciliae, crops of styes, convergent and divergent squint, etc., the subjective symptoms give inability to use the eyes for any length of time on account of pain and blurring of the image running together of type or lines or both, sensation as of grit between the lids, etc., these in most cases can be cured by a properly adjusted glass, which should only be done by a physician and one who has had experience, and practical training in such work. To be expert one must have had large chemical experience whether it be in this class of work or the various other departments of medicine. No eye should be fitted with a glass without an ophthalmoscopic examination of the interior of the eye, to determine if there is any disease of the fundus; by this method remote diseases are often discovered. Albuminuria, Diabetes, locomotor ataxia, cerebral tumors, cause photographs as it were upon the fundus of the eye. Who can say how many diseases have gained headway and progressed beyond being remedied among those who were fitted for glasses without an ophthalmoscopic examination. There is a class of men who advertise to fit glasses free of charge, the majority of them think that all eyes having defective vision, need glasses, therefore prescribe them when the visual defeat is due to beginning disease of the retina, choroid or optic nerve. We need legislation to protect the public from such ignorance; proper correction of refraction comes by skilled oculists will result in great benefit to the eyes of the present and coming generation. Presenting and curing many serious ocular diseases as better method of sanitation and hygiene, have been effective in preventing ravages of scarlet fever, typhoid fever, diphtheria, small pox, etc. We also need legislation compelling an

examination of the eyes of all school children at the time of their entrance into school, and a supervision of them maintained as they advance in their studies.

Since writing the above, a case was referred to me by one of our physicians, who stated that Mr. W. needed glasses and requested me to examine him and give him a prescription for them. Upon making an ophthalmoscopic examination, I found an Albinutitic retinitis in both eyes, I sent him back with a note stating my discovery. In one month afterward, the man was dead. My experience has been that when Albuminuria manifests itself in the eye, the prognosis is unusually grave, as the length of life ranges for 6 months to one year, sometimes longer, but not frequently.

Congenital Dislocations of the Hip.

At the meeting of the Medical Society of the Missouri Valley, held in Council Bluffs, Sept. 17th, 1896, Dr. Byron B. Davis, of Omaha, read a paper on the "Management of Congenital Dislocations of the Hip."

The author discusses the relative merits of the various orthopedic devices of Ochede, Miculicz, Dolega, &c., and does not hesitate to give the preference to the Miculicz plan, because "the general health of the child is maintained by regular daily exercise; the muscles and ligaments are made to perform their regular functions in their normal relations, and their tonicity is assured; and finally that the very act of walking with the head of the femur held in its proper position helps to deepen the acetabular cavity and to give it its proper shape." To prove the practicability of this mode of treatment a recent case is reported in detail.

Dr. Davis believes that the orthopedic treatment should be tried in every case under six or seven years of age. As a test in determining the suitability of orthopedic treatment the author applies extension with the weight and pulley, and with the limb in a slightly abducted position. If within a few days to a few weeks the muscles and fascia are sufficiently stretched to permit the head of the femur to be drawn down to the normal acetabulum, success by the Miculicz method is probable; if not, the case should be operated upon at once.

Pace's bloodless reposition is mentioned but the conclusion is that it has a very limited application, that if the deformity cannot be overcome by intelligent orthopedic measures nothing short of a radical operation promises results.

A concise description of the Hoffa-Lorenz operation is given, and it takes the preference over less radical means, (a) for children under eight years of age not benefited by orthopedic treatment; (b) for all children, without exception, above eight years of age, and (c) for all adults whose disabilities and discomforts are great and increasing, and whose avocations are of necessity laborious. In the adults whose disability and discomforts are not marked, no treatment is advised. In such a case one should carefully weigh the chances, not only of what the patient has to win, but also of what he has to lose.

Electric Light.

Dr. Watson, Proprietor of the Sanitarium for Nervous and Mental Diseases at Fishkill on Hudson, read a paper before the American Electro-Therapeutic Society, at Boston, in September, claiming after many years of experience and observation with the electric light in that institution, where it is used in connection with the hydropathic department, taking the place of other means of producing perspiration, he found that by exposure of the denuded person in a small room upon either side of which numerous incandescent electric lights were suspended and the light reflected upon the person that free perspiration was induced in a very large percentage of persons before the temperature of the room reached that of the normal bodily temperature. He claimed that such results could not possibly be due to heat alone, but were due to the chemic effect of light, an electrical energy conveyed by the light rays, not only upon the skin, but into the sub-tissues, claiming also that each ray of light has a chemic effect peculiar to itself; also pyrological effect not fully known at this time.

The paper also treated upon other forms of electrical energy. He regards the static currents as potent means for the relief of pain, and that it is a current of

penetration, powerful as a stimulant and adjuvant of normal heart action. A form of current that is beneficial in all functional nervous troubles. Especially has the long spark been of great benefit in spinal cord diseases (locomotor ataxy), the pains of the latter have been relieved like magic by the long spark used frequently. He believes the long continued stimulation by electricity of the portion of the cord involved may produce a cure.

The paper not only laid strong claims to the value of the static current, but also that other forms of electricity are equally indispensable, agreeing that brain lesions would not be benefited by other than the galvanic current, and that used with care, claiming that the hyperemic conditions found in the neurasthenic patients are quicker and more surely overcome by the galvanic current than by any other means at our command; also that many of the congestive brain conditions that terminate in some form of hæmiplegia may be prevented by passing the proper current through the center involved.

It was further claimed that medical men have no longer any reasonable right to speak lightly of the therapeutic value of electricity, since its value is an indisputable fact.

It was claimed by the author that no private institution, or public asylum, for the care and treatment of nervous and mental disease, was properly equipped to give to those entrusted to them what is justly due them that did not have a complete electrical equipment and some one connected therewith competent to make the application, as there is not a possibility of doubt as to the value of some form or other of electricity in nervous and mental troubles, especially if used during their incipency.

Alcohol in Old Age.

Ought spirituous liquors to form a part of the dietry of the aged? Does their use in what is called moderation tend to prolong life? While not denying the fact that many who have employed alcoholic drinks moderately have attained to great age, there can be no doubt that many who have been total abstainers have lived to a great age also, and the longest period of human existence is perfectly compatible with complete abstinence from in-

oxicating liquors. The best beverage is undoubtedly water, and they who use nothing else are more likely to attain to a ripe old age than if they had used alcohol in any of its various forms. The popular idea that alcohol is necessary for the aged, to promote heat, is one that is perfectly erroneous, inasmuch as the principal action of this agent is to lower, not to raise, the bodily temperature. Moreover, the state of the vascular system at this period of life must never be forgotten, and anything that causes the heart's work to be increased may be fraught with danger at this time. It is impossible to evade the conclusion that old age will be more likely to be prolonged, and that health will be maintained longer in a state of soundness without than with the use of alcoholic drinks in any form.

Pulmonary Tuberculosis. Etiology.*

Hereditary or family predisposition is dwelt upon explicitly from the intra-uterine state to a more advanced age. An abundance of decidua cells was observed which were infiltrated with tubercle. The statistics of the Brompton Hospital, London, were quoted showing the proportion of males to females nearly the same.

Traumatic influences, blows on the chest, etc., and opening the chest for emphysema, particularly the postponement of the latter operation where perforation with a bronchus has occurred and falls from a stairway, producing lordosis and chest deformity, are other cited causes. Age and occupation in mines, porcelain factories, linen factories, even sailors occasionally, all the dusty trades such as potters, palemakers, printers, drapers, tailors, are to be included under this heading. Habits, sedentary, intemperate, etc., are brought forward as predisposing or directly exciting causes. In alcoholics the progress is rapid and the prognosis unfavorable.

Diet and digestion is explained to cause desultory results by malnutrition, or imperfect supply of nutriment, beginning with a gastropathy of uncertain origin.

Interference of respiration, and respiratory function, want of ventilation and

fresh air, or constant breathing of an impure atmosphere, pressure⁷ of corsets, faulty position of school children at the writing desk, and nasal affections are productive of phthisis. The conglomeration of the population in a narrow area in well populated small towns show a high proportion of this disease; Climate and locality, dampness of soil and abundant moisture are predisposing causes. Undrained places, or heavy, impermeable soil have a higher percentage of consumptives than higher and dry places.

Mental causes from depression, anxiety, grief, over study, lesions of the medulla oblongata may cause impairment of respiration and its consequences.

Previous and existing diseases, as measles, whooping cough, croup, typhus, typhoid fever, scarlatina, influenza, pneumonia, pluriy and laryngitis, abortions, miscarriages, prolonged lactation, suppression of discharges, increase the tendency to consumption. Diabetes, anaemia and chlorotic conditions may produce it. Hypertrophy of the tonsils and adenoid growths; shortly, pharyngeal tuberculosis is often primary and not consecutive of the pulmonary variety.

Infection by tuberculous dust, dried sputum, etc.; animal infection by eating the meat of diseased cattle and utilizing the milk of them.

Servants have infected the household. Dust from walls, railroad coaches, where spitting cups have not been used, or have not been emptied for a long period, and where the sputum had an opportunity of drying. Hospitals, and hospital and library volumes of books transmit the disease very often. The plutocratic tendency of erecting high buildings produces a stagnation of fresh air and light, and is an indirect source of this terrible disease.

The New York statistics are quoted in order to emphasize the importance of the aforesaid causes. It has been held in this paper that the breath of consumptives is contagious, and virulent tubercle bacilli have been demonstrated to be present in the nasal cavities of a person habitually breathing the same air as phthisical patients, thus demonstrating the dangerous consequences of a sojourn in a bacillary atmosphere.

Numerous statistics are brought forward to substantiate the above assertions, from England, Germany, France, Russia.

*Carl Engel, Iowa State Medical Society. Abstract.

The pathological anatomy, Virchow's and Niemeyer's views, are explicitly elucidated, and the author brings a new classification forward, which he calls (a) tubercular phthisis; (b) leucocytic phthisis; (c) syphilitic phthisis.

The different kinds of consumption will be considered in another paper; also the treatment in vogue with all known authorities, and the treatment of the author. The latter will be published after the next session of the Missouri Valley Medical Society.

Veratrum Viride and Gelsemium in Traumatic Tetanus.

Dr. Grinnell reports in the Medical News the case of a boy, aged 6, while playing in his yard, barefoot, cut the ball of his left foot with a piece of glass. The wound apparently healed. Some nine days after (April 14th) he complained of stiff jaws and difficulty in swallowing. These symptoms increased, until, on the night of the 16th, tetanic spasms began to manifest themselves. The cicatrix of the wound was cleaned and scraped. It seemed somewhat tender on pressure, but no foreign body was discovered. The site was scarified, however, and turpentine oil applied, and four-grain doses of ammonium bromide were given every two hours. As there was no perceptible improvement on the 17th, tincture of veratrum viride (Norwood's) was given, at first one drop every hour. As this did not seem to prevent the return of the spasms from time to time fluid extract of gelsemium was given, at first in one drop doses every hour, in conjunction with the veratrum, then in two-drop, and finally in three-drop doses. The veratrum was also increased on the 20th to three drops every hour, so that the child was taking three drops each of the veratrum viride and the gelsemium every hour, and it seemed to require this amount to control the spasms. This dosage was continued for forty-eight hours. Only once during this time did it produce active vomiting, or sufficient nausea to require an opiate to control it. When this relaxed condition was obtained, the drops were decreased to two of each on the 22nd, and on the 23th to one of each, which was continued until the 27th, when the in-

terval was lengthened to two hours, and gradually thereafter discontinued. The ammonium bromide was given in three to four grain doses every two hours during this entire period. The remedies in diminished doses were continued to April 30th, when the boy could open his mouth without difficulty, had a good appetite, was playful, but more boisterous in his manner than usual, or, as his mother said, "more nervous." The remarkable thing to the author was the tolerance in one so young of such powerful remedies, and in such doses. It seemed to require these doses to control the conditions producing the tetanic spasms. The instructions were to decrease the amount and frequency of dose when distinct signs of nausea appeared or the signs of convulsions abated. The author had been led to think that veratrum viride might prove a valuable remedy in traumatic tetanus, as it had done in puerperal and other convulsions, and that gelsemium, in its peculiar action in causing relaxation of the muscles of the jaw, might prove a valuable adjunct, and in this case these remedies did not disappoint.

The Bicycle and Disease.

If bicycling is an excellent preventive of disease and a promoter of good health, it is of no less value as a remedy for certain pathological conditions. It is not compatible with the limits and nature of a magazine article intended for general readers to enter into details about the treatment of diseases. I shall therefore limit myself, says Dr. Garrigues, in "Forum," to a few remarks. By its effect on respiration and digestion, bicycling becomes a patent remedy for anæmia, that condition of the blood which consists in a diminution of the red blood corpuscles and shows itself in pallor of the skin and the mucous membranes. Numerous nervous troubles are relieved or cured by this exercise, such as neurasthenia or nervous prostration—a condition usually due to overwork or worry, and in which the nervous strength is lost and the slightest exertion causes fatigue and physical and nervous exhaustion. The same holds good in regard to headache, insomnia, and neuralgia. Among the nervous affections benefited by bicycle riding may also be included that trouble-

some disease, asthma, a cramp-like contraction of the muscles of the bronchial tubes, which causes a painful sensation of choking. In the beginning of phthisis, where parts of the lung tissue become condensed and less pervious, moderate bicycle riding is helpful. Many diseases of the intestinal canal—such as dyspepsia, constipation, and hæmorrhoids—yield to the effects of wheeling. A case has recently come to the writer's knowledge in which the stiffness remaining after a fracture of the leg was successfully treated by riding a bicycle.

But if bicycling is a valuable resource in certain diseased conditions, there are numerous others in which it is harmful or should only be indulged in very cautiously. Most acute diseases demand rest, and bid the bicyclist abstain from his favourite pursuit, and many chronic diseases are made worse by riding. Since wheeling considerably increases the rate of the respiratory movements, it would be folly for a person with advanced pulmonary consumption to attempt to ride. The heart being whipped unmercifully to work in driving the machine, wheeling should be strictly forbidden in serious diseases of this organ; and persons affected with minor cardiac troubles ought at least never to race or otherwise expose the heart to a fatigue which it is not prepared to stand.

Baths in the Treatment of Insomnia.

Dr. Eccles says that the use of the warm bath for the purpose of producing sleep is very efficient if properly carried out. The bath should be administered in a room whose temperature is 65 degrees to 70 degrees F. The patient is made to stand with his head over the edge of the tube, and his head and face are then rapidly doused with water at 100 degrees F. The cooling of the body by the air and the hot sponging of the head send the blood to the head, dilating the vessels of the entire brain. The entire body is then immersed, except, of course, the head, in a bath at 98 degrees F., which is rapidly raised to a temperature of 105 degrees to 110 degrees F. In a few minutes the patient is taken from the bath, wrapped in warm blankets, and, without exertion on his part, taken to his

room. The blankets absorb the moisture; in his room the night clothes are put on, a warm bottle placed at his feet, and possibly some warm, liquid food administered. The sedative and refreshing result is often most marked.

Sub-Mucous Linear Cauterization.

Dr. Norval H. Pierce, Professor of Otology in the Chicago Post Graduate Medical School, read a paper before the Mississippi Valley Medical Association, Entitled Sub-Mucous Linear Cauterization, which attracted much attention. The method is entirely original and has to do with the reduction of hypertrophy of turbinated bodies.

The instruments required for the operation, are a small knife, an instrument which Dr. Pierce calls a blunt submucous dissector, and a cupheaded applicator or carrying fused chromic acid. The knife resembles a large myringotome. The other two instruments are made from No. 18 silver wire which is tempered to give sufficient resistance. Each instrument is mounted on a metal bayonet handle with an angle in the shank. By this device the hand is kept out of view of the field of operation.

The technique of operating is as follows:

1. The parts are thoroughly cocaineized. For this purpose, Dr. Pierce suggests, that a 4 per cent. solution of cocaine which contains 1 per cent. antipyrine applied by means of a pledget of cotton on an applicator, is most satisfactory. Before using, this is heated by holding the pledget of cotton containing the solution over a flame until it feels quite warm when applied to the back of the hand. Anesthesia produced in this way occurs more quickly, is more profound and lasts longer.

2. After anesthesia is complete an incision is made in the anterior head of the turbinated body, about a quarter of an inch from the muco-cutaneous junction, carrying the knife slightly parallel to its surface until the guard is reached. He has made this first incision by means of the ignipuncture, but find it less satisfactory than the cold incision.

3. After the slight hemorrhage has ceased, the blunt dissector is introduced

into the incision and gradually insinuated with is little up and down or lateral motion as possible, beneath the mucous membrane, i. e. in the sub-mucous connective tissue. This may be continued to as great a distance as necessary; along the entire length of the body, until the resistance of the head of the dissector is felt against the mucous membrane, as it dips down to form the posterior head. Care should be taken not to break through the mucous membrane at any part of the course. There may be a few drops of blood escape after this stage of the operation, but hemorrhage is always insignificant. After this ceases, the last stage of the operation is begun.

4. The head of the cup-probe, in the cup of which chromic acid has been fused, is insinuated quickly and dexterously, into the anterior incision. This is caused to slowly follow the tunnel which has been made by the dissector and which it readily does. It is then withdrawn, the nose is syringed or sprayed out through the opposite nostril with an alkaline solution and the operation is complete.

In speaking of one of the chief advantages of this method of cauterization over electrical cauterization, the author says: "We must remember that in the use of the cautery we burn from without inward. That in thus penetrating the conchae there is greater destruction of the surface than of the parts beneath, and this is just exactly reversing the desired object, for it is not by destroying a functioning membrane which is of the greatest importance to the entire economy that we gain the good effects of cauterization. The process by which an hypertrophied conchae is reduced takes place in the sub-mucous connective tissue. By cauterization we here set up the formation of scar-tissue, which following a law which presides over it in all places, contracts, and thus the volume of the turbinated body is decreased. By our method we leave the surface of the mucous membrane intact. By a proper application of it, no ulceration whatever occurs. The cauterization is carried immediately to the elements which are concerned in bringing about the result desired."

In summarising the advantages which this method has over electric cauterization,

the author draws attention to the following points:

1. The cheapness of its armamentarium.
2. Its reliability. The instruments employed are always in order, and are easily transportable.
3. Its simplicity and the ease with which it is performed.
4. It is greatly less terrifying to the patient than is electrical cauterization.
5. It is painless under cocaine.
6. Its efficacy. The scar-tissue produced by this method is a great, if not greater than that produced by electrical cauterization. The hypertrophies not having begun to recur after a years time, in the cases examined, its effects may be regarded as permanent.
7. It does not destroy the mucous coverings.
8. The reaction is very slight, much less than that following the use of the electric cautery.

The Clinical Significance of the Child's Fontanelle.

At the recent meeting of the Mississippi Valley Medical Association, held in St. Paul, Sept. 15, 16 and 17, Dr. Isaac A. Abt, of Chicago, Ills., read a paper on the Clinical Significance of the Child's Fontanelle.

The writer points out that the examination of the fontanelle has diagnostic and prognostic value, and its examination should not be omitted in the examination of the sick infant.

He calls attention to the following points:

1. Involution of the fontanelle occurs normally from the 15th to the 18th month. From birth till the 9th month it decreases gradually in area; from this time till the complete closure the decrease is more rapid.
- Retardation of normal involution indicates rachitis or hydrocephalus.
2. The fontanelle presents pulsatory and respiratory phenomena. The pulsation increases if the tension is slightly increased; diminishes or is lost if the tension is greatly increased.
3. A murmur over the fontanelle occurs in a certain number of children.

most commonly in those who are anæmic or rachitic; it is not pathognomonic.

4. A slightly prominent and pulsating fontanelle indicates a cerebral hyperæmia, such as occurs in fevers.

5. A protuberant and tense fontanelle indicates an exudation or inflammation in the cranial cavity.

6. A retracted fontanelle indicates a condition of collapse brought about by acute intestinal diseases with profuse watery discharges; infantile atrophy irrespective of the cause, hemorrhage, effects of prolonged acute infectious disease, and in marantic sinus thrombosis.

7. In acute infectious diseases with meningeal symptoms, examination of the fontanelle shows no protuberance nor tension, whereas in true meningitis these conditions are marked.

8. In the so called hydrocephaloid a terminal condition of cholera infantum, marked by the occurrence of striking meningeal symptoms, the fontanelle is retracted.

Syphilis of the Nervous System,

Dr. Philip Zenner (Cincinnati Lancet-Clinic, Sept. 19th,) gives the recent views on the pathology, symptomatology and therapy of syphilis of the nervous system.

The most characteristic lesions are the gumma, meningitis, and specific disease of blood vessels. Cerebral syphilis appears usually at the convexity, particularly in the motor area; or at the base, and then in the interpeduncular space.

The most common form of spinal syphilis is meningo-myelitis, where the meninges are extensively affected, and the cord substance is secondarily involved, chiefly the antero-lateral columns.

In cerebral syphilis usually persistent headache and insomnia precede symptoms of grave disease. When the lesion is on the convexity the chief symptoms are convulsions, especially of a Jacksonian type, limited paresis or paralysis, and dementia. Syphilis of the base usually involves various cranial nerves, it is also commonly attended by endarteritis, and finally thrombosis of large arteries at the base of the brain. The prominent symptoms are ocular paralyses, hemiplegia, and attacks of delirium. The most prom-

inent symptoms of spinal syphilis are those of spastic paralysis.

The diagnosis of syphilis of the nervous system is based upon the fact of prior infection, the influence of specific treatment and some peculiarities of the clinical manifestations. Among the latter are the indications of the presence of multiple lesions, and fluctuations in the manifestations, rapid coming and going of symptoms, &c.

About one half the cases of cerebral syphilis get well. The prognosis is best where there are isolated gummata, worse in diffuse disease.

The treatment should be the most energetic possible. Both the iodides and mercury should be employed.

The Value to the Medical Student of Physiologic Study.

In the Journal of the American Medical Association of September 19th, Dr. John A. Benson, Professor of Physiology in the College of Physicians & Surgeons of Chicago Illinois, contributes an article on "The value to the Medical Student of Physiology study." The Author criticizes the tendency on the part of the Authorities of our institutions of medical learning, to devote too much time and attention relatively to the senior or so-called "practical" branches of the collegiate curriculum, and not enough to the junior studies. He holds that there is no branch of medical study so sternly "practical" to both the under-graduate and the post-graduate as is physiology, and demonstrates the correctness of his position. Among the propositions laid down by him is one to which the attention of Medical Educators should be called;—that is the three most important attributes of a scientific physician—diagnostic ability, pathologic knowledge and therapeutic skill—depend on the thoroughness and completeness of his physiologic education. The duty and prerogative of the physiologic teacher is to give to the practising physician the "standard" he has to use in his work.

The correct methods of teaching physiology are carefully reviewed, and the Author shows beyond any doubt that he speaks with an authority born of experience and study.

Nerve Suture and Other Operations for Injuries to the Nerves of the Upper Extremity.

A. J. Ochsner of Chicago, read at the meeting of the Mississippi Valley Medical Association; Sept. 16, 1896, a paper with this title.

The author reports in detail eight cases operated upon during the past four years.

Of these, case 1 had suffered a division of the median and ulnar nerves three months previously. These were sutured and sensation became perfect, but motion remained very incomplete.

In case 2 nearly three inches of the ulnar nerve above the elbow was destroyed by a gun shot wound. A dozen strands of catgut were sutured back and fourth and this mass was covered by a fold of fascia. Sensation returned slightly after one month and both sensation and motion are practically perfect after three years.

In case 3 the ulnar nerve was cut above the elbow three months previously. There was complete paralysis of motion and sensation. One and one-half inches of intervening connective tissue was excised and the ends sutured. In twenty hours sensation was restored and it became perfect within ten days. Motion was partially restored after ten days and has improved constantly ever since. The hand still shows some atrophy of the muscles one year after the operation.

Case 4 was a partial division of the ulnar nerve below the elbow and compression by connective tissue. Complete paralysis six weeks after the injury. The nerve was freed from the cicatricial pressure and sensation returned in twenty hours.

In case 5 and 6 paralysis followed compression by callus with recovery upon freeing the nerves.

In case 7 and 8 neuritis which recurred after being temporarily relieved by freeing the nerve from compression due to adhesions was permanently relieved by administering two ounces of castor oil daily in the form of beer.

From the author's experience he concludes, among other things, that every severed nerve should be sutured, even after years, but the earlier the better, and that a second operation is indicated if the first one fails; that the ends should be

clean cut and freed from crushed or cicatricial tissue; that tension, suppuration and hemorrhage should be avoided; that castor oil, in large daily doses, is of value in the relief of neuralgia of traumatic origin. He also advises covering the united nerve ends with a fold of fascia.

Effects of Diphtheria on the Nervous System.

Pernice and Scagliosi, examining the nervous system in cases of death in the early stages of diphtheria, find that the principal changes are to be seen in the brain, the cerebellum, spinal cord and nerves (the sciatic) being affected to a lesser degree. In the sciatic nerve there was no true alteration of the fibres, but merely a hyperæmia of the perineurium and endoneurium. Most of the changes seen in the brain were referable to more or less grave disturbances of the circulation or parietal vessels; inflammatory or degenerative changes with hemorrhage atrophic degeneration of the cells of the cerebral cortex and anterior horn of the spinal cord especially affecting the protoplasmic prolongation of the cells. Similar initial changes were seen in Clarke's column. The authors believe that the point of departure of these changes is to be found in vascular changes due to diphtheritic toxin circulating in the vessels.

We are indebted to the bacteriologists for many things but they have taught us nothing of more practical value than the lesson that a larger number of our minor complaints and a thousand-and-one of our aches and pains, which make life miserable, come auto-intoxication. The ever present germs in the alimentary tract manufacture their toxins and these are absorbed much to the distress, if not to the actual danger, of the individual. The good old-fashioned theory that you must "keep the bowels open" if you wish to enjoy perfect health thus finds a scientific explanation in the latter days. It is now simply a question of common sense; keep the alimentary canal free from the poisons of germ life. You cannot do this better than by using California Fig Syrup. It is pleasant to the palate, and prompt to give relief.

Nasal Affections as a Cause of Head-aches.

J. H. McCassy, M. A., M. D. of Dayton, O., in an article in the Cincinnati Lancet-Clinic Sept. 5th, 1896 says:

For a number of years the subject of eye-strain as a cause of headache has received merited attention from the profession. The family physician and the oculist have reaped a reward commensurate with their labors. If the affections of the nasal passages had received like attention, and their abnormalities truly regarded as a great causal factor in the production of headaches, the coaltar products and other narcotics would not have been dispensed so lavishly and indiscriminately for the relief of cephalalgias. This unwise practice has been followed by disastrous consequences, such as anemia, debility, palpitation of the heart, and general depression.

Affections of the nasal fossæ and the accessory cavities exist for a long time without attracting the attention of the patient or practitioner. In connection with the discharge of my official duties as Superintendent of the Kansas State Insane Asylum, I examined nearly eight hundred patients several times a week, and searched diligently for the cause of headache. As might be expected, headache is alarmingly common among the insane. I am convinced that hypertrophies, vaso-motor rhinitis, polypoids, spurs, deflections of the septum, catarrh of the ethmoidal, frontal and maxillary sinuses, etc., are frequently the cause of headaches, and in not a few cases of insanity.

Neurotic and neurasthenic patients are particularly prone to nasal hypersthæsia, on account of the rapid swelling of the inferior turbinated bodies due to nervous influence.

The ophthalmic nerve, the first division of the fifth, with its branches, viz., lachrymal, frontal and the nasal, and other subdivisions give sensibility to the nasal fossæ and to the accessory cavities. The *dura mater* derives its sensibility from branches of the fifth nerve. It is the only inter-cranial structure that is supplied by a sensory nerve. But the blood-vessels throughout the brain are accompanied by branches of the sympathetic. It is,

therefore, easy to explain why abnormalities of the nasal fossæ and the accessory cavities would cause pain in any region of the head. It is difficult for the patient to locate the pain, because it does not always correspond to the part affected. Occipital tumor may cause frontal pain. Some years ago vertex pain was regarded as an index of uterine disease; now this index has changed to the occipital region.

Frontal catarrhal headache is attributed by the physician to the extension of congestion and inflammation from the nose to the frontal sinus, along the ordinary line of communication—the infundibulum. But should the pain be located in the temple, top of the head or in the occipital region, the association of the pain with the trouble in the nose is likely to be overlooked.

Headaches may be classified as (1) *congestive*; (2) *anemic*; (3) *toxic*; (4) *neuralgic*; (5) *neurasthenic*; (6) *organic*; (7) *reflex*; (as eye strain and structural changes of the nasal passages and the accessory cavities). Chronic catarrhal headaches may be subdivided into (1) *reflex*; (2) *neurotic*; and (3) *inflammatory*. They are all characterized by a dull pain at the root of the nose, under the back of the eyes, and about the forehead, which may or may not be accompanied by depression of spirits and confusion of ideas. This train of symptoms is aggravated by wet, cold and changeable weather.

The *middle turbinated* body, when inflamed or pressed upon, is the cause of a world of trouble. There is scarcely any region of the head that is exempted from pain when this proud little body is molested. Just press it with a probe or throw a strong spray on it, and you will instantly start up the multiform symptoms of migraine; and any person who has ever been afflicted with this dreaded malady will readily appreciate this.

DIAGNOSIS OF REFLEX CATARRHAL HEAD-ACHES.

They tease a patient through long months and years. They lack a history of central origin and symptoms referable to cranial sources, such a optic neuritis and paralysis, and that they are readily controlled by proper local treatment is sufficient to distinguish them from organic headaches.

They are distinguished from sick *headaches of gastric origin* by the furred tongue and other gastric disturbances, and from the *headaches of eye-strain* by their persistence after their refractive error has been corrected; from *lithemic headaches* by the tests for uric acid, and the fat, healthy appearance of the patient, which is in marked contrast with the sub-normal, care-worn appearance of the subject of chronic catarrh; from *rheumatic headaches* by the severe pain in the occipital frontalis, temporal and sometimes the masseter muscles, with the characteristic soreness and stiffness in these muscles, which is worse in the evening, whereas the catarrhal headaches are present on awaking in the morning.

It is difficult to separate reflex catarrhal headaches from *migraine* because the latter partakes of the nature of the former in that it is located in the same region, etc. It will be noticed, however, that migraine is more intermittent and paroxysmal, hereditary in origin, is accompanied by congestion of the conjunctivæ and subjective visual phenomena.

Nervous headaches are associated with *nervous prostration* and debility, and the fact that they are usually relieved by sleep and rest. Reflex catarrhal headaches are more amenable to treatment than most other forms, and disappear entirely when the catarrh is cured.

Treatment of Gynecological Affections by Electricity.

In a paper on Electricity in Non-Suppurative Affections of the Uterine Appendages, read at the annual meeting of the American Electro-Therapeutic Association, held in Boston, Mass., Sept. 29th to Oct. 1st, Dr. T. Schavon, of Stanford, Conn., contends that the success in the treatment of gynecological affections by electricity depends mainly on a correct diagnosis. Because a certain number of affections can be benefitted to a wonderful extent by electricity, while many are not only not benefitted but might be aggravated by the use of this agent.

The effects produced by electricity in affections of the female pelvic organs are: Increased circulation of blood and lymph, consequently stimulation of absorption,

improved nutrition, tonic effects on muscles and nerves, sedation of nerve irritation and the electrolytic or decomposing action of the galvanic current.

The author enumerates the diseases and the mode of application as follows:

Oophoralgia and neurosis of the ovary, high tension faradic current or sinusoidal alternating current. Chronic salpingitis and oophoritis high tension faradic and sinusoidal currents as long as pain is a symptom, later galvanic current, positive active electrode in the vagina, large dispersing electrode over abdomen to stimulate absorption, current strength from 50 to 150 milliamperes.

Exsudations around tubes, ovaries and in broad ligaments are benefitted by mild galvanic current intended to promote absorption by interpolar electrolysis and general stimulation.

By painting vaginal roof with iodine cataphoresis will be utilized.

Cystic degeneration of ovaries may be benefitted by faradic moderate tension currents, symptoms are almost always relieved by it.

Displacements are also favorably influenced by stimulating moderate tension currents which restore tone to supports of organs.

Adhesions may be made to be absorbed by galvanic current.

Neoplasms of tubes, ovaries and broad ligaments are only exceptionally amenable to electrical treatment, and it is here that an exact diagnosis is required, so as not to inflict damage, for example, by rupturing a pus tube.

With the advance in aseptic surgery the removal of neoplasms can be accomplished with comparative safety, but in inoperable cases electricity may be tried.

The more accurate the diagnosis the more satisfactory will be the result of electrical treatment.

The above paper, which was executed in the concise and terse way peculiar to the writer, was received with a great deal of favorable comment by the members of the Congress.

Some Uses of Oxygen in Medicine.

Dr. Walker Shell, of Terre Haute, Ind., in the Indiana Medical Journal, gives a short history of the evolution of our knowledge of the gasses in the blood,

and the advances of the science of chemistry in the study of the aerial ocean in which we live.

It deals with the chemical and physiological theories of the action of oxygen upon the human organism, especially its relation to blood changes. Describes his studies of its physiological action, proving that it is harmless in ordinary dosage, causing a feeling of increased comfort when inhaled. Diminishing the number of respirations for 1 to 5 times in a minute. The pulse rate is reduced and rendered fuller and stronger. It relieves digestive disorders, improves the appetite and procures for a patient restful and quiet sleep. This is so deep as to resemble narcotism, but the patient is easily aroused and the mind is clear.

The purity of the gas administered is insisted upon. Chlorine should be removed and the oxides of mercury should never be used to prepare medicinal oxygen.

Electricity is suggested as the future method of manufacture.

The function of oxyhemoglobin is discussed at some length, and the value of oxygen in the treatment of anemias, chlorosis and chloro-anemias, and its wonderful power to aid in the digestion and assimilation of iron.

The pre-eminent value of oxygen in certain otherwise fatal pneumonias is discussed at some length. Its power to improve the blood, rest the tired out respiratory muscles and relieve the laboring heart, are pointed out as rational indications best met by an atmosphere artificially rich in oxygen. At the same time the power of oxygen to improve nutrition must not be forgotten.

The position of many writers on therapeutics who contend that high fever contra-indicates its use is controverted since his observations have nearly always shown a fall of temperature, and this is explained by the theory of more perfect oxidation of irritants. The promptness with which it relieves dyspnea, strikes the eye and influences the judgment.

In cases of massive pneumonia where cyanosis dyspnea warns us that life is being extinguished, it is most strongly indicated, and wins its greatest triumphs, because without it we know the case will end in disaster.

Many of these cases are made comfort-

able, rosy and refreshed by needed sleep. It aids recovery by restoring the blood and cells to their normal and healthy condition.

Uric Acid and the Role of Electricity in Its Treatment.*

Dr. Davis claims that "the Uric Acid Diathesis" is *inherited* and also *acquired* through errors in diet, hygiene, climatic conditions and *mental* habits. That a large majority of the *ailments* of the human family can be traced to that source directly or indirectly. That in every demonstration of force in the human economy, *electricity* is given off. Even *thought* is a *function* of brain cells. Hence chemical action results, which means *destruction* or *metamorphosis* of tissue, therefore one definition of uric acid and its salts, i. e., "the ashes of nerve and muscle waste" is apropos. Here comes the necessity of the rapid removal of this *retrograde* or poisonous material from the body.

Its *retention* means complications upon complications. It truly becomes a hydra-headed monster, an octopus as well, as it shows itself in so *many* forms, interfering with vital functions, the emunctories become choked and *reflex* symptoms baffle the skill of the most *learned* in the medical profession. Sometimes the decomposition begins *within* the body and we have *ammonia* in the *whole* urine. Here we have the most disastrous result in the *whole* category. As the *alkaline* products cause more acrid secretions that destroy the lining membrane of the tubules. We must consider the formation of the *skin*, and realize that these 2800 little canals, (known as pores) on every square inch of this organ. One's first thought would be to put them in shape to facilitate the rapid removal of all *debris* by *that* route, as fast as possible. Hence *vapor bath* firstly to achieve this end.

To exemplify the method of applying electricity I will report a case.

Mrs. S. G., aged 50 years. Family history fairly good, except the inheritance of the uric acid diathesis from her father. She gave the history of many attacks of

*Abstract from paper read before American Electro-Therapeutical Association, at Boston, Mass., Sept. 30th, 1896, by Dr. J. G. Davis, of New York City.

grave and much voiding of urine clear as spring water. The latter giving evidence of *retention within* the body of the *toxic* elements of the urine. She came into my care in the early summer of 1877. Had been given up by an excellent physician. She was naturally a large, corpulent woman, but at this time was *enormously* swollen. (The anasarca was general.) A marked *cachexia* almost transparent. Urine was 50 per cent. albumen. All medicine had been tried. I agreed with previous physician, both in diagnosis and prognosis. The pressure from the dropsical effusion was so great to relieve the dyspnœa, I agreed to try to relieve the present symptoms. I gave her a thorough vapor bath, for its action on the skin, followed at once by electricity, using a Kidder Tipped Battery; *positive pole* over the kidneys and negative pole *above* the pubes, over the *bladder*, (for its natural physiological action). The positive pole contracting in a mechanical manner, forcing the tubules to evacuate their contents. With the *stimulation* to the circulation they would be really *flushed* out, so to speak.

My *theory* proved correct, as she passed three gallons of water in 24 hours. It goes without saying, I was as much surprised as the patient. This line of treatment was carried on for weeks—two vapor baths per week and three treatments of *electricity*. The *first* named for its vacarious work in relieving the kidneys from action, in a large measure. The *electricity* for its stimulation to the circulation, thus enabling *nature* to heal the lacerated and inflamed organs. I gave her instructions how to keep well. She became normal in size and health returned; she living 17 years after this experience, dying in the summer of 1895 with intestinal disease, I have been recently informed by her sister.

I gave appropriate medical remedies as they were indicated by the condition of the patient.

Brevity of the Umbilical Cord.

Guido Bell, of Indianapolis, tries to prove that the limits of normal lengths of the umbilical cord must be confined to 10 and 15 inches. Many cases of delayed and hastened labor are explained by the

influence an insufficient cord has. In our obstetrical practice we meet sometimes with cases of confinement where labor pains made fair progress during the first and partly during the second stage, only to become at once irregular, and finally inert. In other cases the obstetrician may be disappointed by a rapid delivery; for instance, an internal examination did not in the least reveal any readiness for birth, but soon a few spasmodic contractions expelled the fetus.

The writer refers to Kaltenbach, who states from exact measurement that if the placental insertion of the cord is at the fundus 14 inches is too short, while in deeper insertion 7 inches is sufficient.

But as we are only in exceptional cases enabled to ascertain the seat of the placenta we must rely on clinical symptoms. The importance of knowing delayed or hastened labor in advance is long recognized, and the elastically retreating head was claimed as a sign of an insufficient cord which weakens contraction by constantly pulling. But when in such a case the obstetrician found a cord of 10, 12 or 14 inches he was disappointed and he denounced a most valuable symptom as deceiving. He was under the impression that brevity of the cord falls below 10 inches, but if he would keep in mind the distance from near the liver where the fundus uteri is to the exit of the pelvis he would readily conceive that a length of the cord of 14 inches is insufficient under certain circumstances.

The essayist proves on cases the correctness of his views. What is new in the paper is the fact that labor may be hastened sometimes by a short cord; its pulling may act like a whip to the horse. Then he mentions a new symptom, namely, secondary contraction, following immediately stronger ones.

Concluding he says: If the obstetrician can exclude any abnormality of the pelvis and of the position of the child, then he must find the causes of irregular pains within the womb, and if he detects a localized pain during contraction, or "secondary" pains, or an elastically retreating head, then he must assume a relative shortness of the cord.

To discriminate elastic retraction from rebounding in primiparæ is a matter of experience.

The Limits of Nephorrhaphy.

The Limits of Nephorrhaphy was the subject of a paper read by Dr. Hugh M. Taylor, of Richmond, Va. before the American Association of Obstetricians and Gynecologists Sept. 22, 1896.

He conceded the frequency of Nephroptosis. Since he had been systematically looking for movable kidney he found it so frequent in its occurrences that he no longer regarded the experience of Glendon Linduer, Edibohl and Noble as unique. His opinion was equally well fixed that only a small proportion of the cases met with give rise to symptoms of suffering, ill health or death and consequently a majority of cases do not call for Nephorrhaphy.

He favors the classification of Nephroptosis under three heads.

- 1 Patients who have displaced kidney do not know it and suffer no inconvenience whatever from it. This type he thinks represents by far the largest class.

2. Patients with displaced kidneys who may or may not know it who suffer from gastro-enteric discomfort and perhaps a long train of vague neurotic disturbances. In this type he thinks we find the largest class calling for operative interference.

3. Patients with movable kidney, who are subjects of occasional or frequent, mild or severe attacks of Deit's or renal crises. This last mentioned is he thinks the least frequent type met with, but the urgency of the symptoms more frequently demands operative interference.

Apertinent question was he thought: are the Neurasthenia, gastroenteric disorder and renal crises invariably due to the displaced kidney. May not other morbid conditions produce the same effect? Is it not true that multitude of factors other than movable kidney induce the same neurasthenia and gastro-enteric manifestations. Are we not justified in claiming that one of the dangers of the hour is the mistaking of nervous diseases due to other causes for those incident to nephroptosis? Many ovaries and tubes have been and are to a lesser extent being removed for the cure of neurosis which has its origin in the brain and not the pelvis. Many kidneys, in his opinion, have been and will be an-

chored for the relief of neurasthenia due to some other morbid state. Nephorrhaphy for the relief of neurasthenia must be limited by one ability to differentiate between neurasthenia incident to nephroptosis and that due to some one or more of the many sources of neurasthenia: and until this perfection in diagnosis is attained many kidneys will be anchored in vain.

In the same manner many factors other than movable kidney may as also induce gastro-enteric disorders. Dilation of the stomach and nephroptosis are often associated. Which is the primary trouble? To which are the gastro enteric disorders to be credited?

Nephorrhaphy for the relief of gastro-enteric disorder is limited by our ability to tell to what extent the disorder is due to renal ptosis *per se* or to enteroptosis, or to some one of the many well known etiological factors of gastro-enteric disorder. Nephorrhaphy for the relief of the condition of Deit's or renal crises must be limited by one success in differentiating between this condition and that of gall tract, appendicular and kidney colic due to Nephrolithiasis. He accepted as logically sustained the conclusion that the Deit's or renal crisis, is due to a kink or twist of the ureter with retained urine in the ureter and pelvis of the kidney. Apart from the violent paroxysms of pain, (the renal crisis) the tendency of urethral twist and urinary obstruction to induce hydromphrosis and in exceptional instances pyonephrosis rendered operative interference more imperative in this class of cases.

His protest was not against nephorrhaphy but only its abuse. He conceded the value of operative interference in many selected cases but deprecated the tendency towards operative interference merely because the kidney is movable.

Dr. William Macewens Course of Lectures in California.

One might have heard the falling of a pin in the great auditorium of Cooper Medical College at San Francisco, Sept. 15th, 1896, as Dr. William Macewen, regius professor of surgery in the University of Glasgow, ascended the rostrum. By his side walked the venerable presi-

dent of the college, surgeon L. C. Lane, who introduced him to his audience. Hundreds of physicians and students, from San Francisco and neighboring towns, had gathered from every direction, and as the eminent Scotch surgeon stepped forward gave him generous applause.

A man of good appearance, tall and well-apportioned, iron-grey of beard and hair and with a kindly face and beetling brows, this distinguished successor of Lister outlined in pleasant tones and with a Scottish accent his plans for the series of lectures just inaugurated on these western shores, two thousand leagues away from his native heath.

Then he took up the subject of the morning, surgery of the brain. By the aid of charts and lantern pictures thrown on an ample screen he called attention to the *moulding of the cranial walls in early life* to fit the fast developing brain within, an adaptation of the container to its contents; again to the relative positions of intra-cranial bodies to each other, as revealed by frozen sections both transverse and coronal; and still again to the high protrusion of the cerebellar apex between the cerebral hemispheres above while dipping low about the cord beneath the cranial base below. This is a feature of brain anatomy not often dwelt upon.

Irregularities of cerebral and cerebellar hemispheres were shown—results of abcess pressure upon nerves and vessels illustrated—channels of infection from nasal fossa and from middle ear to cerebrale meninges traced. Points were made upon the symptoms caused by cerebellar abscesses above and then below the chiasm of decussation of nerve fibres; upon the certainty of localizing certain lesions by fixed symptoms of motor involvement; and upon the danger of rupturing the delicate vessels of the pia mater.

The impossibility of ligating the lateral sinuses, as recommended by some authors, was demonstrated, and a method by loosening the dura from the skull and compressing the sinus from the outer side with iodoform gauze suggested.

In conclusion he told of his experience with a man who came running after him as he was hurrying to catch a train in the South of Scotland, and who said he wanted his head opened. Observing that the patient had some facial paralysis

he gave him a card to the house surgeon with directions to prepare the man for operation. Returning after eight hours Dr. Macewen was told that the patient had died. That he had declined to be put to bed, as he had insisted that he could not lie down and had not lain down since the accident (a blow) a week before. That pain had been constant and that attempts to lie down had been followed by great dyspnoea and distress. The house surgeon insisting upon decumbency, the man consented and was put to bed, when cyanosis and stertorous breathing soon ensued and death supervened in about ten minutes. Autopsy disclosed a clot, resting upon the cerebrum in such a manner that it caused little inconvenience in the patients upright position, but with decubitus the clot had slid downward and some portion making its way into the 4th ventricle respiration was soon suspended by its pressure.

The Pathology of Itching and its Treatment by Large Doses of Calcium Chloride.

Before the recent meeting of the British Medical Association Dr. T. D. Savill gave an extempore synopsis of his contribution on The Pathology of Itching and its Treatment by Large Doses of Calcium Chloride with Illustrative Cases. After referring to the troublesome nature of the sensation and the many different forms it may assume, the apparatus concerned were described. It was shown that the symptom of itching was an evidence of an irritation of the sensory nerve endings, or of the sensory nerve fibrils, in the skin. Etiologically considered, itching might be classified into primary and secondary pruritus. The latter corresponds to the pruritus which attends and is secondary to the great majority of eruptions, and is characterised by being more or less localised to the causal skin lesion. It is explained by the involvement of the nerve ending, and the sensory nerve fibrils in the lesion of the skin which produces the eruption. It is also proportionate in severity of that lesion. The reason that itching is absent in some strumous and syphilitic eruptions is explained, the author thought, either by their beings suppurative and therefore destroying the

sensory terminations, or by the nerve structures adapting themselves by reason of the indolent or chronic nature of the process.

Illustrations of primary pruritus are found in the itching of jaundice, diabetes, in pruritus sensilis; and in all skin conditions where itching is the primary, and often the sole, local feature of the case. The author also believed that the itching of lichen urticatus and prurigo come under this heading. It is characterised by a tendency to become general or diffuse, and by the eruption, if there may be any, coming out either simultaneously, or subsequent to the pruritus, never, before. The various hypotheses that have been suggested in explanation were then discussed, and the conclusion was arrived at that it is a blood change which is the real causal factor of the nerve irritation in primary pruritus, on the following grounds: (1) The nerve endings and fibrils are always bathed in lymph. (2) Primary pruritus is always diffuse; any localisation can generally be accounted for by scratching or robbing of the clothes, as across the shoulders. (3) It has a tendency to be periodic and paroxysmal, and, in diurnal attacks, to occur after meals. (4) It is often produced and aggravated by certain dietetic articles, some of which are known to contain blood poisons, and the action of all of these is difficult of explanation otherwise than by their action through the blood. (5) In the pruritus of jaundice, diabetes, gout, etc., a blood alteration is known to exist, and in all the conditions for a blood change, can by inquiry be revealed. (6) Certain drugs, notably morphine, hypodermically injected in large doses directly into the lymph, produces general pruritus. (7) The typical eruptions secondary to pruritus—namely, prurigo and urticaria, have always approximately the same characters; and, moreover, these eruptions resemble, in their elements, those produced by drugs and blood poisons. (8) The remedies which have hitherto been found most efficacious in primary pruritus are those which have a sedative effect on the nerves, or else a direct effect on the blood—for example, the carbolic acid suggested by Hebra. (9) Calcium chloride, which suggested itself to the author on the foregoing grounds, has been proved to have a

marked action on the blood by increasing its coagulability.

As regards the nature of the blood change, it is difficult to arrive at a conclusion in the present state of our knowledge.

The author gives seven illustrative cases, and remarks in conclusion: "As to the efficacy of calcium chloride in relieving the itching, the patients themselves, who are in these circumstances the best judges, have no doubt whatever, and are loud in their expressions of gratitude. The above cases are selected as illustrations because they are less complicated, and because the pruritus was in all of them a most pronounced symptom. In all these cases the itching was relieved, and the eruption, if any existed, disappeared at the same time. I have not so far met with any absolute failures, though sometimes the dose has to be considerable and continued for several weeks, especially in long-standing cases. In Case 3, 4, 6, and 7 a cessation of the remedy was attended by a return of the symptoms, which disappeared again to its resumption, all the surrounding conditions remaining the same all the while. This, which corresponds to Mill's double method of agreement and difference, is the best kind of evidence obtainable as to the efficacy of any drug. This was particularly noticeable in Case 6, where it occurred on two occasions.

"Four of these cases are of especial interest because other remedies had been previously tried and had failed to give relief either for the eruption or for the itching. Thus, in case 3—warm tar-baths, ointment, arsenic, and bromide of ammonium; in Case 4—tar-baths, and a mercury and tar ointment; in Case 6—sulphate of quinine in large doses; in Case 7—arsenic, sulphate of quinine, tar-baths and lotion over a long period of time, had all been tried without producing any evident amelioration. In several of these cases, though I have no records showing which ones, a regulation of the dietary had also been adopted, but until the calcium chloride was administered no benefit had ensued. The opportunity of trying the remedy in children for the itching that accompanies urticaria, has not presented itself, but there is every

reason to believe it would be equally efficacious in them also.

Mode of Administration.—The doses must be considerable, not less than 20 gr. three times a day, and should be gradually increased; 30 and even 40 gr. have often succeeded where less have failed; the *Pharmacopœia* doses is 15 to 20 gr. If administered after meals and in a wineglass of water it is surprising how little these large doses upset the stomach, and I have never known it produce vomiting. Patients sometimes complain that it makes them thirsty, and to cover the salt taste it is best administered with 1 drachm of tincture of orange peel and 1 ounce of chloroform water, in which from it is really an agreeable medicine, and would be well taken by children. It is important that the diet at the same time should be regulated—no beer, sugar, or sweets being allowed, and men only in very moderate quantity. The recovery of Cases III and VI was certainly regarded by neglecting this. It is also important to keep the bowels acting freely. This was evident in Case I. Although improvement is generally noted after the first dose, complete recovery is sometimes not obtained until the blood becomes saturated with the remedy, and the dose must be increased until this is accomplished; in long-standing cases perseverance is necessary—for example, Case VI. Success may follow doubling the dose if 20 gr. do not succeed. The remedy seems to take longer to act in old people and inveterate cases—Case VII, for example, though Case II yielded more readily. When recovery is obtained the dose should be gradually, not suddenly, reduced; and it is very important that the remedy should be continued for at least one to three weeks after all symptoms have disappeared.

"It is not possible yet to indicate precisely which cases are most suitable for this treatment, but it is worth while trying in all cases where itching is a pronounced feature; and if this small contribution shall have been the means of affording relief in this troublesome condition my object will have been achieved. In most of the cases an actual cure has resulted; but in a few of very long duration, including Case VII among the foregoing, relief was obtained only so long as the drug was being taken. Neverthe-

less, cure will probably result, with perseverance, even in these."

The Contagiosity of Inherited Syphilis.

Dr. R. W. Parker writing in the English Medical Journal, after twenty years experience in the East London Children's Hospital comes to the following conclusions:

(1) That the children of syphilitic parents very frequently show manifestations of a disease which is almost universally called "inherited syphilis." (2) That in a large proportion of the cases, this inherited disease is not syphilis at all, in that the disease is non-contagious, and would be better named "inherited from syphilis." (3) That this inherited disease is true syphilis only if it conform to the ordinary tests which pertain to contact syphilis, and prove to be infectious and contagious. (4) That the children of syphilitic parents occasionally inherit syphilis. (5) That the mother suckling a child with such a disease may be infected by it. (6) That a healthy wet-nurse and other persons brought into contact with such a child are even more liable to be infected by it than the mother. (7) That lymph taken from such a child, even although apparently well at the time, will probably, or possibly, invaccinate syphilis. (8) That in reply to the question, Can a healthy woman give birth to a syphilitic child? the answer must be No. (9) That many women give birth to children who suffer from what is called "inherited syphilis," without themselves appearing to be infected. The explanation is obvious: this "inherited syphilis" is not syphilis in the true sense, and the mother's so-called *escape* depends on this fact. (10) That there is no recent clinical evidence which fully realizes Colles' teaching, viz., a mother suckling her own syphilitic infant, and escaping an infection to which a healthy wet nurse suckling the same infant and other members of her family, who have merely handled this infant, have succumbed, the latter facts being essential, is only to establish the contagiousness of the infant's disease in any and every given case asserted to be "inherited syphilis."

Dr. Phillips recommends the ligation of the dorsal vein in cases of atonic impotence.

The Management of Cases After Abdominal Operation.

The American Journal of Obstetrics for September, 1896, contains a paper by Dr. J. W. Hickman, of Tacoma, Washington, dealing with "The Management of Cases after Abdominal Operation." We very briefly reproduce the principal points of the article.

The anatomical and physiological peculiarities of the abdominal cavity, that constitute it practically a large lymph space, are referred to as a modifying factor in post-operative management.

It is advised to retain the first dressing by a binder extending from the ribs nearly to the knees, that the abdominal muscles may be the better restrained.

In moving the patient from the table, heels, knees, buttocks and head are to be kept on the same plane; the patient should not be thrown about as a sack of grain might be handled.

It is stated that shock may not readily be differentiated from hemorrhage, and that its duration may be hours and even days; that it is best treated by heat and the subcutaneous injection of strychnine; that after twenty-four hours stimulating enemata hold a high place. Strychnine, if necessary at all, is to be given in larger doses than ordinarily administered: $\frac{1}{20}$ grain is advised, and, if shock be grave, this dose is to be repeated every twenty or thirty minutes for three or four doses. In extreme shock there is a degree of immunity from the toxic effects of strychnine; in any event, it is better to risk a toxic convulsion than to have the vital powers strike work.

That very troublesome feature, thirst, is managed by teaspoonfuls of cold or warm water every hour, beginning three hours after operation. After six or eight hours, it may be given every fifteen or thirty minutes. Ice is not to be used, for the reason that thirst is increased; too much cold water is taken and frequently the mouth gets dry and sore as a result. If vomiting occur, absolutely nothing is taken into the stomach. Here thirst may be alleviated by holding in the mouth some water, or giving some by the rectum.

Vomiting may be due to any of several causes, but after flatus is expelled from the bowel it ceases; if it does not, it is

evidence of something wrong. The expulsion of flatus at the end of twenty or thirty hours enables us to give a cathartic if we wish; reverse peristalsis is the penalty if it be given before. After gas has been expelled, if temperature reaches 100° or over, a saline should be given—sulphate of magnesia is always preferred, its action favors osmosis from the abdominal cavity into the gut.

Tympany may be due to imperfect emptying of bowel prior to operation or improper ingesta afterward. It may be due to sepsis.

Practically, all cases may be divided into two classes. One is marked by activity and pain, the other is simply distension. The first is treated by hypodermics of morphine and turpentine enemata; the other by rectal injections of five or six grains of quinine in $\frac{1}{2}$ oz. whiskey, repeated as necessary. Atropine is under no circumstances to be used in the after treatment.

If drainage has been used, it is just as necessary to use precise aseptic precautions in its dressing as at the original operation; it is always the fault of the dresser if a tube becomes infected subsequent to its insertion. The tube is advised to be removed as soon as the discharge is simply serum. If this does not occur in forty-eight hours you may look for a discharge of pus, when the tube should be left in longer and the cavity treated as an abscess. Gauze drainage should be removed partly in twenty-four hours and all of it in forty-eight. If necessary, other gauze can be inserted in place of that removed.

Every patient having undergone a laparotomy should wear a perfectly fitting bandage for at least a year.

Maternal Sterility.

Dr. G. Betton Massey, in a paper at a meeting of the Philadelphia Obstetrical Society, Sept. 3d, 1896, took exception to the teaching that the chief reason for sterility is narrowness or flexion of the uterine canal, aside from congenital deficiencies and anomalies. When it is remembered that the narrowest pin hole os will admit a sound on careful manipulation which is many times larger than the self-propelling spermatozoid it would seem that this reasoning is inconclusive.

Its prevalence is doubtless due to the operative furor, for since the days of Sims and J. Y. Simpson practically no form of treatment has been employed except some form of enlargement of the canal. This was at first accomplished by slitting the cervix—producing artificially, in other words, the same lesion for the sewing up of which other costly operations were later devised. Owing to the combined ineffectiveness, morbidity and mortality of this procedure it has of late been superceded by so-called dilatation, which is accomplished only by tearing apart the muscular and fibrous tissues that encircle the canal by powerful steel instruments. Only exceptionally has this accomplished a cure of the sterility, while it is at times followed by serious consequences in the shape of parametritis and diseased appendages.

Far more prominent causes of sterility may be found in imperfect participation of the uterus in the sexual organs, catarrhal changes in the mucus of the uterus and tubes, and inactive ovaries—the two last being the most important. A lessened aspiratory action of the uterus, while rendering conception less certain, cannot be a serious impediment on account of the auto-mobile powers of the spermatozooids. This defect may, however, be materially lessened by the general intra-pelvic action of electricity, promoting the nerve tone of the organs, particularly of the uterus and ovaries, increasing muscular activity and quickening the circulation. The method best adapted to accomplish this purpose is the vagino-abdominal galvanic application with covered vaginal electrodes, which should be negative, a current of 30 to 40 milliamperes being turned on and off gradually and repeatedly by the swelling method. This may be supplemented by applications of the galvanic current to the sexual center.

Of the toxic effect of altered secretions on the fertilizing cells of the semen and on the ovum there can be no doubt, and it is in these cases that intra-uterine galvanic applications are of the greatest service by their alterative action on the mucous membrane. The positive pole was usually employed.

Deficient activity of the ovaries may or may not be associated with lack of sexual appetite and responsiveness, for many women conceive readily in whom the

organs is deficient or absent. Negative vagino-abdominal applications of either current may increase ovulation, while the musculo-tonic effect of the galvanic current in waves will do much to lessen a practical maternal impotence from weakened musculature which is only less disastrous to the conjugal relation than similar conditions in the male.

Of five cases seeking his services for a cure of sterility, four had resulted successfully at some time during a year subsequent to treatment. The slight attention paid to this subject is doubtless due in part to a lack of information as to the value of this method, and in part to the prevalent disinclination of American women for the burdens of maternity. That electricity may cure sterility when the patient only asks relief from chronic uterine inflammation was shown by the fact that of thirty-two cases of this nature under his care, in which sterility was necessarily present, eight had since conceived.

The Rheumatic Causation of Chorea.

Dr. Churton, from an examination of 551 cases of rheumatic fever and 157 cases of chorea, together with a study of the current literature on the subject, deduced the following conclusions. (British Medical Journal.) (1) The postulated toxin (x) being accepted as an essential element in the causation of rheumatism, depressing conditions (y) determine the first position or locus of the disorder—that is, what cells or tissues (z) the toxin shall strike. (There is probably a quite separate and independent causation for (x)). In 91 cases of rheumatism in which the incidence of the chill, strain, etc., was recorded with precision, and also the joints or parts first affected, it was seen in every case—or with very few, and doubtful, exceptions—that the part receiving the impact of the conditioning cause was the first to become disordered by the toxin—for example, wetting of feet always caused arthritis first in the lower extremities; of shoulders, in the upper extremities. (1) If (x) and (y) are given, the position of (z) can be stated within certain limits. (3) If (y) is a fright, shock, or intense excitement, (z) will be the nervous system; in the developing brain of a child the result is

usually chorea; in adults it may be delirium or coma, perhaps hyperpyrexia. (4) Arthritis or endocarditis may follow the nervous disorder, since the symptoms themselves may become causes of depression of tissues, and thence of multiplication of micro-organisms and toxins. (5) Similarly, chorea may follow arthritis; but (6) arthritis is never the first result of fright; and (7) chorea is never the first result of chill, unless fear or brain excitement accompanies the chill. (8) A man who, being rheumatic, and having no other known disease, is accidentally subjected to strong excitement—a quarrel—and in a few hours develops chorea, is an “experiment devised by Nature” to prove that the essential cause of the two disorders is the same, and that only the conditioning (localising) causes are different. In non-rheumatic persons, even young children, brain disturbance does not cause chorea.

Conflicting Opinions Regarding Vitality of Disease Organisms In Sea Water.*

It is apparent that in investigating the possibility of the infection of oysters with typhoid fever the first question to be answered is whether the typhoid fever bacillus can live or multiply in the waters and muds of our oyster beds. Upon this point the answers given by the various writers who have investigated the question appear to be very considerably at variance. According to some writers pathogenic germs rapidly succumb to the influence of sea water, while according to others they are very much more resistant. Professor D. Giaksa in 1889 carried out a series of experiments on the duration of existence of certain disease germs in the polluted water of the harbour and also of the purer sea water obtained at a distance from the shore. He found that the microbes of cholera and typhoid could be still demonstrated with ease in sterilised sea water up to three or four weeks, but the precise limits of their persistence were not defined. His experiments indeed appeared even to show that a rapid multiplication of the disease germs took place during the first few days, although subsequently a rapid decrease in their

numbers occurred. It is, however, much more probable that this effect was to be ascribed rather to the breaking down of the groups of bacilli and filaments which had been originally added to the sea water into their individual members than to a true multiplication. It is also possible that the weak broth solution which was added with the disease germs may have tended to exaggerate this apparent growth. In unsterilised sea water, on the other hand, both cholera and typhoid organisms rapidly disappeared, a result which he attributed to the struggle for existence with the water organisms. The failure to discover cholera and typhoid fever bacilli is much more probably to be ascribed not to their absence, but to the want of proper methods of isolating these from such a mixture—methods which at that time had not come into general use.

Foster and Freitag have shown that typhoid bacilli will live for a long time in sea water or even in stronger salt solutions. In concentrated brine, such as is used for pickling, the cholera vibrio died in a few hours, while the typhoid bacillus remained active for weeks and even months. Nicati and Rietsch found that the cholera bacillus lived in sterilised pure or polluted sea water from the harbour for a period extending over two months.

More recently, Professor Percy Frankland has laid great stress on some experiments on the prejudicial influence which the addition of 1 or 3 per cent. of common salt to Thames water exerted on the vitality of the typhoid fever bacillus. Inasmuch as these results have been applied to the question of the probability of the transmission of this disease through oysters, they must be considered here. From his experiments he concludes as follows: “There can be no doubt, therefore, that common salt, whilst enormously stimulating the multiplication of many forms of water bacteria exerts a directly and highly prejudicial effect on the typhoid bacilli, causing their rapid disappearance from the water, whether water bacteria are present or not.” In a letter to *Nature* in which these results are applied to the vitality of typhoid fever bacilli in sea water, experiments carried out by Cassedebat are quoted in confirmation of his view that typhoid fever bacilli are rapidly destroyed in sea water

*Wood-British Medical Journal, Sept. 19, 1896.

Cassedeat found that typhoid germs had already disappeared in sterilised sea water within forty-eight hours. Cholera, on the other hand, was still active after thirty-five days, when the experiments had to be drawn to a close.

From this brief summary of the work which has been done on this question it will be seen that the matter was in a very unsatisfactory condition, and in a great need of reinvestigation. This was all the more necessary since those interested in denying the possibility of infection through oysters have made use of these results in support of their statement.

Treatment of Chlorosis.

According to Dr. Frederick Taylor iron is the most valuable drug that we can give for the treatment of chlorosis. But in the severer heart forms, just as digitalis is useless in heart disease, without the heart is saved some of its exertion by physical rest, so iron may be of little value unless some of the strain and wear and tear of the body is saved by the same means. Many writers have briefly called attention to this necessity. To me it seemed a point of importance, because it appears to stand to reason with the public, and not a little also with the profession, that an anæmic patient should have fresh air and exercise, as essential to the restoration of the condition of the blood. The value of fresh air is intelligible, but whether exercise is useful or prejudicial should depend a good deal upon the actual cause of the anæmia, which we have shown still to be a very open question. In so far as chlorosis depends upon imperfect digestion, and in so far as exercise will improve digestion and increase appetite, it may have value; but on any other hypothesis as to chlorosis, its beneficial effects cannot be safely predicted. On the other hand, in certain directions it may be shown to be harmful. In late stages of anæmia, when the heart is dilated, the patient short of breath and panting with any exertion, the effort to keep up a regular system of strain on this organ only results in prolongation of the illness. Even with less degrees of cardiac weakness it seems obvious that muscular ex-

ertion requires the use of a full supply of corpuscles and hæmoglobin, such as the individual with chlorosis does not possess. Let the patient be saved all the exhaustion of corpuscles involved in locomotion and the use of the muscles of animal life, and the blood that remains can be devoted to the care of digestion and respiration, and the nutrition of the heart, so that a balance on the right side may at length be accumulated. I have in many cases seen this borne out. Cases that have been treated but with temporary benefit by iron and exercise, and have lingered on for months or years, have been permanently benefited by prolonged rest in bed—rest for one, two, or three months, according to the gravity of the case when seen. The patients and friends will raise objections, such as that it is such a severe measure for such a slight complaint, that they want to dance, or play lawn tennis, or ride horses, not to say bicycles; and the friends will bring forward the well-worn hypothesis that bed is weakening and depressing; but I am sure that the results will in most cases justify this really very simple and adjunct to the perhaps necessary iron course.

To a patient such as I saw a few months ago, who had been anæmic for four years, and who could scarcely speak for panting, what should two or three months' enforced rest matter, compared with the improvement she attains at the end of that time, and the saving she effects in the work of the overtaxed heart?

I quite realise that it may not in every case be dealing with the *fons et origo mali*. If the strain of puberty is the cause, then this treatment does respect the cause, in that it saves in one direction what it cannot save in the other. If the corset has anything to do with chlorosis, then rest in bed takes off the pressure from the hampered organs, whatever may be the *modus operandi* of the constriction; if digestive failures be the cause, then surely the treatment of gastric disorders like ulcer, gastritis, and even functional disease, by rest in the recumbent position is not unknown. I need not pursue the subject further. I will only urge that to drive chlorotic patients to seek after fresh air by vigorous exercise, or by gentle exercise, or even by carriage rides when they are very bad, does not conduce to the end which is desired.

A Physician's Status as Regards the State.

The American Medico-Surgical Bulletin, October 3d, 1896, contains an original article by Robert G. Taylor, Esq., Counsel of the New York County Medical Society, entitled "A Physician's Status as regards the State."

The writer has taken a case of more than usual interest prosecuted by the Medical Society, of which he is the counsel, and has reported it at considerable length. The defendant was prosecuted for the crime of practicing medicine after conviction of a felony. The New York law denies to felons the right to practice.

In the case at bar, it appeared that the defendant had been convicted of the felony in 1878; several years before the enactment of any law which denied to felons the right to practice. He, therefore claimed that, as to him, the enactment was *ex post facto*, upon the ground that it added a new punishment—namely, the deprivation of his right to practice medicine—to the punishment already suffered by him.

In the argument before the Court the defendant relied upon the Cummings and Garland cases, decided by the Supreme Court of the United States shortly after the close of the war, in which it was held that the efforts of Congress and of the Legislature of Missouri to require test oaths before professional men should be allowed to practice, was unconstitutional upon the ground that it sought to add a new punishment for the act of aiding the South. The Supreme Court held that the legislation in question clearly had no object except to add a new punishment for past conduct; and was, therefore, void. The defendant claimed that these two cases were decisive in his favor.

Upon the other hand, the Society claimed that under the Police Power of the State, it had a right to regulate the practice of medicine by such general regulations as would secure the public against the consequences of ignorance, incapacity, deception or fraud. The authority of the Supreme Court of the United States in the Dent case, 129 U. S. 114, was cited, in which the Supreme Court sustained the right of the State of

West Virginia to exclude an existing practitioner upon the ground that he did not come up to educational requirements imposed by the State, and based the right of the State upon the broad ground of its reserved Police Power.

The Medical Society argued that the possession of *good character* in a physician was quite as essential to the safety of the public as the possession of an *education*; that the object of the law in dispute was not to impose new punishment upon the defendant, but generally to protect the public against practitioners of bad character; and that the act in question was a legitimate exercise of the Police Power. The Court decided that the act was constitutional; but appeals are to be taken.

The title of the article was justified upon the ground that the ultimate question turned upon the true legal status of a physician; whether he was free from State control or subject to general regulation for the public benefit.

It was claimed that as the Dent case settled the question as far as the right of the State to impose an *educational* qualification was concerned, by parity of reasoning, that decision would be controlling in the present case where the question of the imposition of a *character* qualification was to be determined.

Speech Defects as Localizing Symptoms.

In the Medical News for September 19th, 1896, appears an article entitled "Speech Defects as Localizing Symptoms, from a Study of Six Cases of Aphasia," by Dr. Eskridge, of Denver, Colorado. The six cases referred to appeared in the same journal on June 6th and 20th, July 11th, August 1st and 15th, and September 5th of the present year. The article presents a brief resume of six operable cases of aphasia.

The original reports of these cases show that they were studied in detail and with great care. In three, guided alone by the symptoms of speech disturbance, localizing diagnose were made, surgical procedures recommended, by the timely performance of which fatal terminations were averted.

The last three cases of the series presented defects on the motor or emissive side of speech mechanism. The first of

these (Ibid., August 1st, 1896,) was a cyst of the foot of the second left frontal convolution, and is of peculiar interest. Some have regarded this as the center for writing, the graphic center. Dr. Eskridge found that his patient could form all the letters of the alphabet well, but when he attempted to arrange these letters into words the latter seemed in most instances meaningless jumbling of letters together. He spelt in the same manner as he wrote. It required from two to three hours for the patient to write six to eight lines. On the other hand, when the doctor spelt the words for him he wrote much more rapidly, and the letters were arranged in the words correctly.

Dr. Eskridge seems inclined to locate in the foot of the second left frontal convolution the center for spelling instead of the center for writing. In this connection he says;

"We can write with a pen held with the teeth, hand or foot. It is very improbable that the same center in the cerebral cortex would serve to guide these various widely separated groups of muscles in writing. On the other hand, no matter what groups of muscles we employ in the formation of letters, the arrangement of the letters in a given word is always the same. It seems to me more probable that the memory for the arrangement of letters in words is stored up in the cerebral cortex. This process is learned by tedious and repeated repetition. We should naturally expect to find the cortical center in which is registered the memory picture for the arrangement of letters in a word, to be located near the center which governs the muscles employed in writing."

The doctor thinks if the inability to write from a lesion in the foot in the second frontal convolution is due to an inability to spell, the center should be called the orthographic center. He proposes the name anorthographia for the inability to write coming from the inability to spell.

The case of oro-lingual paralysis and those of sensory aphasia are exceedingly interesting, but as the article that we are reviewing is itself a condensed review of the various cases, it is impossible further to condense it.

Urinary Abscess from Urethral Stricture.

The Lancet-Clinic, of September 19th, has an original article by Dr. Ravogli, of Cincinnati.

The writer points out to the anatomical disposition of the perineal fascias, and to the different places, where the urinary infiltration may take place, according to the ruptured position of the urethra. He reviews the causes of the rupture of the urethra causing effusion of urine in the connective tissue, trauma, foreign bodies, manoeuvres to dilate the urethra, ulcerative process as the most usual causes.

In cases of a stricture of severe nature, on account of the continuous pressure of the urine, the portion of the urethra, just beyond the stricture, gets dilated, inflamed and sometimes ulcerated, and liable of rupture. The urine in the subcutaneous tissue, on account of its alteration, inflames the tissues and causes plegmon and suppuration.

The course of the abscess is usually acute, but sometimes it progresses in a subacute way. The patient feels a kind of weight and of a tension in the perineum or in the rectal region, and fever begins with a chill. In the region of the perineum is considerable swelling and œdema of the skin. Usually no sign of fluctuation can be found, but the tissues are deeply infiltrated and of a red bluish color.

The writer describes the clinical case under his treatment. The patient had enormous swelling of the perineum, and of the scrotum. It was not possible to pass a filiform catheter into the urethra, and in order to prevent the gangrene, it was necessary to make an incision on the raphe of the perineum reaching by strata the middle fascia, which, when opened, let come out a large quantity of offensive pus. The stricture was subsequently treated with electrolysis, and after the first application it was possible to introduce a sound No. 12 am. After this a soft Nelatan's catheter was introduced into the bladder and it was left in permanence, as to prevent the urine going out from the wound, and obtain more readily its cicatrization.

In conclusion, an urinary abscess must be promptly opened, so as to prevent gangrene. The wound must be carefully

drained and antiseptically treated, and the application of a soft rubber catheter into the bladder preventing the issue of the urine from the wound, is a great help for a speedy recovery.

Carbon Bisulphide Poisoning.

Stadelmann showed before the Berlin Medical Society three cases of this condition occurring in workers in a rubber factory. The symptoms were very variable, consisting of digestive disturbances, muscular weakness, tremor, ataxia, increased muscular irritability, painful muscular spasm, disturbed sensation, sometimes increased and sometimes diminished knee-jerks, etc. The occurrence of three such cases within a short period of time showed that the hygienic conditions in the factory were far from satisfactory. The author is of opinion that the disease is more frequent in Germany than is generally believed. In the discussion Mendel observed that he had seen many such cases. The mental symptoms consist of mental weakness, dementia, loss of memory, etc. He had seen considerable improvement on removing the cause and adopting suitable treatment. Bernhardt said that the poison may effect the peripheral nerves, and give rise to a degenerative neuritis and paralysis. He also called attention to the statement of French writers, that the carbon bisulphide poisoning can give rise to hysterical manifestations. Some of the symptoms certainly resemble hysteria. Kronig referred to a fatal case in a patient the subjects of Bright's disease. Marked anæmia was present, but Kronig could not find any alteration in the blood cells. There was marked mental depression. The patient gave rambling answers, and was forgetful of what he had just said. Romberg's symptom was present, and there were articular pains, but no disturbance of sensation. Kahlischer thought that the disease presented the characteristic features of a toxic affection of the nervous system such as is found in poisoning by alcohol, lead, etc. Stadelmann in reply said that he had found no changes in the optic disc. He did not altogether agree with the French view in regard to the relation of hysteria to this disease.

Experimental Appendicitis.

Roger and Joyué detail, in the course of a lengthy and important communication, in the Clinical Journal, the results of their researches on the pathology of appendicitis. The method adopted was the artificial production of the disease in rabbits. The rabbit, as is well known, has a large appendix—much more voluminous than that of the human subject—and it is continuous with the cæcum without the interposition of any structure corresponding to the valve of Gerlach in man. Moreover, the rabbit's appendix contains, in its mucous linings, glandular follicles in greater abundance, but strictly analogous to those found in the human being. The authors describe in detail the anatomical relations and the histology of the rabbit's appendix. As to its physiology, they made several experiments with the view of ascertaining the functions of the secretion of the follicular glands. Having obtained the liquid, by the establishment of a fistula, they found it to be clear, viscous, alkaline, and produced in considerable abundance. Its digestive properties are almost *nil*, being limited to a feeble action on starch, which undergoes saccharine modification. The secretion had no bactericide properties, as was demonstrated by experiment. It may, however, serve to dilute, and clear out from the appendicular cavity stagnant matter, germs, and toxine. The appendix possesses feeble absorptive capacity, as is proved by successive experiments made on it, and other portions of intestine, with a solution of strychnine. The artificial production of appendicitis was attempted in four different manners: (1) Ligature of the appendix, with subsequent injections into its cavity of a virulent culture of the bacillus coli. This method was twice practised, and led to a suppurative appendicitis, with peritoneal adhesions, and in one case to a perforation communicating with a large intra-peritoneal purulent collection; (2) Simple ligature. Subsequent to this procedure there were observed, according to the lapse of time after ligature, various changes, beginning with increased vascularity and distension, and ending with necrosis, purulent infiltration, ulceration, adhesions to surrounding organs, and finally, the production of dense no-

dular fibrous tissue. It is remarked that in no instance was perforation found, although several times the parietes were found to be so thin at certain points as to lead to the belief that rupture was imminent. The pus contained leucocytes and bacilli; these latter, in the more advanced cases, became fewer in number. Cultivation demonstrated the presence of the bacillus coli. (3) Partial constriction of the appendix. This was accomplished by means of an incompletely tightened ligature of cat-gut. It produced no notable results, beyond an induration of the parietes, and occasionally a slight general diminution in the calibre of the lumen. Balls of sealing-wax, present irregularities of surface, were employed, and the wound sutured; but without result. The appendix in each case remained normal; the wound healed without peritonitis, and the foreign matters were expelled. Thus the only experimental method which is capable of producing the lesions of appendicitis is complete ligature and the absolute transformation of the cavity of the appendix into a closed cyst. The authors point out that here their results are not in accordance with the pathological features observed clinically in man. Obliteration is frequent, but not constant; often a simple constriction or the presence of a foreign body are observed to play a considerable part; sometimes even these are absent, and the lesion is then purely parietal. They show, however, that the contradiction is only apparent, for their experiments were made in each case on a healthy appendix submitted to rough usage to produce the experimental disease. In man, and in the course of the natural evolution of the malady, we have to do with an organ previously in a morbid state, so that the action of a partial constriction or of a foreign body now forms the final term of a series by which these factors themselves have previously been produced. Incapable of exciting inflammation in the parietes of a sound appendix, they are able to provoke it in one already predisposed. And the nature and mechanism of this predisposition remains most frequently obscure. Where there is total obliteration, the action of micro-organisms, and the consequent suppuration, arise from the accumulation of the products of secretion and not materially

from stasis of the circulation. For if the ligatured appendix be opened at its free extremity, so as to form a fistula no results to the appendix follow. If the fistulous opening be then closed, the whole morbid process forthwith develops, ending in suppuration. The authors are not disposed to give credence to the theory that the bacterial contents of the closed appendix show an exalted virulence. Indeed, their own researches demonstrate that this virulence, especially in later stages, is rather lessened; and that the organisms become fewer in number as the disease progresses. They believe that the effective agent is the accumulation of toxins, which in the unobstructed appendix are constantly swept out, but which, when obstruction occurs, accumulate, and act all the more powerfully in that their production is slow and progressive.

Retention of Dead Fœtus in Utero.

Dr. P. G. Griffith, in the *British Medical Journal*, Sept. 19th, 1896, reports the case of a lady who has had three children. The youngest was born in June, 1894. She suckled it fourteen months. The menses appeared eight months after parturition, and were quite regular until January, 1896, when she became pregnant for the fourth time. On April 23d last she had a miscarriage. The fœtus was of the fourth month, and had not been dead very long. Ten days later, that is, on May 3d, several fœtal bones came away in the vaginal discharge. On the same day the author found some more in the vagina and just inside the cervix, and one or two more passed in the course of the following week. Judging from their size they probably belonged to a fœtus four months old. They were quite denuded of flesh, and the cartilaginous ends were almost entirely eroded.

There could be no doubt that the bones belonged to an ovum impregnated at a much earlier date than the previous January. It seems equally certain that no impregnation took place between the time of the patient's confinement in June, 1894, and January, 1896. The writer is therefore inclined to think that the bones were those of a twin to the child born at the former date. That they were not ex-

pelled at the time of birth is curious, but would probably be explained by the fact that the lady has a bicornual womb, one horn being much more developed than the other. It is perhaps worthy of note that she belongs to a distinctly twin-bearing family.

Ileo-Abdominal Fistula Due to Lumbricoids--Report of Case with Operation.

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The October issue of the International Journal of Surgery contains, under the above caption, an interesting clinical report, an abstract of which does poor justice to its author, Dr. David H. Williams, of Knoxville, Tenn.

The patient a lady, aged 37, had previous to the visit of the operator, presented a cheeked and conflicting history, dating back eleven months, during which time she had discharged through an artificial opening into the abdomen, made by her physicians into a large fluctuating mass, four lumbricoid worms still alive. Following such discharge she lost daily in weight until reduced from 120 pounds to less than 65 pounds, much of her food escaping through the opening. Patient was operated on by the author at her earnest solicitation, though little hope of recovery at that date was possible on account of her reduced physical state.

Without entering into details it was noted that "after opening into the peritoneal cavity, a curious arrangement of the much-thinned omentum presented itself—very long and thin prolongations of it (suggesting the tentacles of a decapod), nine in number, passed down at varying distances apart through the coils of the intestines, to be finally attached at or near the point of union of the mesentery with the gut. Just before the point of adhesion was reached, averaging perhaps 20 m.m. from the mesentery, was found embedded in each omental tentacle a distinct rounded or ovoid mass, averaging about 6 by 9 m.m. in diameter, which to the eye and touch bore striking resemblance to the smaller tuberculous glands which one meets with in the surgery of the lymphatic chains. Hardening of these masses in alcohol and subsequent examination, using the Ziehl-Neelsen method of straining, proved them to be undoubtedly tuberculous."

After separation it was found necessary to do a complete resection of two inches of the intestine, uniting the ends with a medium-sized Murphy button. The operator having to drive twenty-four miles across the country to his home could only remain a short time after the operation. News received from the physician in attendance five days later was to the effect that the patient survived the operation twenty-six hours, and might have recovered but for the unfortunate circumstance of breaking the only accessible syringe for stimulation.

REFLECTIONS ON OPERATIVE APPEARANCES.

1. It was noted when the abdomen was opened, that the intestines, in their entirety, were free of contents, even liquid to any degree.

2. The nodular tuberculous growths in the prolongations of the omentum were totally unlike anything the writer had ever seen, for there were no indications of a former peritonitis, either general or local, except that immediately around the intestinal opening in the abdomen, the bands dipped down to a great depth between the intestinal folds; without showing evidence of adhesion on their way down or even of old plastic exudation in their vicinity. It was curious to note that one band had threaded its way down, being no larger than ordinary darning cotton, and had attached itself to the base of the vermiform appendix, presenting there one of the small masses spoken of, which was about 4 by 6 m.m. in size, and traction on which would elevate the appendix, the latter itself seeming to be normal.

3. Since thorough examination of the abdominal viscera was made, so far as the critical condition of the patient would permit; without finding the slightest evidence of tuberculosis elsewhere, it becomes interesting to know how the prolongation of the omentum could have become affected when the main body of the omentum did not present such invasion. In the next place, the question arises as to whether the bacilli did not enter at the abdominal opening, and hence infect an area necessarily lowered in nutrition, or whether the tissues being vulnerable bacilli did not enter from within; in either event why was the process so limited

for miliary points involving the peritoneum could not be detected, nor were the mesenteric glands involved; examination of the lungs before the operation was negative, and no previous trouble could be ascertained.

4. As to the merits of an operation in this case—for in some respects it stands alone—the writer can only say that the operation revealed the fact that scarcely sufficient lumen remained for the passage of even liquid food downward, and the only possible alimentation which could have been resorted to before the operation must, of necessity, have been effected per rectum; to what extent this procedure might have afforded more material to work upon is a question.

Diagnosis of Calculus by the New Photography.

Dr. D'Arsonval believes (Clinical Journal) that a great diagnostic advantage will soon be reached, in regard to renal and vesical calculi, by the Roentgen photography. The latest pictures obtained by Chappuis and Chanel have an especial value, since they show that it will soon be possible to diagnose calculi in the urinary passages with absolute exactness. They not only show the existence of a calculus in the bladder, kidney, or ureter, but it is possible to distinguish the substance of which it is composed, whether it is homogeneous or formed of different layers, whether the kernel is small or large, and of what it is composed. The most interesting photograph from this point of view showed—1, the silhouette cast by a calculus of pure uric acid; 2, that of a calculus the same size as the first, but composed exclusively of phosphate of ammonia and magnesia; 3, that of a calculus much larger than the others, formed of several distinct layers of uric acid in the centre, with an outer layer 4 mm. thick, and entirely different in colour, and composed exclusively of the triple phosphate; 4, the silhouette of a bone 1 cm. thick, and another of the index finger of one of the experimenters. The differences in the depth of shadow in this photograph are so marked that it is impossible to mistake the characteristics and kinds of the calculi. The tiny kernel of uric acid is

distinctly visible, while the outer layers of the large calculus are represented by clearly defined rings. A second photograph showed another calculus with a kernel formed of soda urate, enclosed in an outer layer of the triple phosphate, both very clearly defined in the photograph. A third represented a number of uric acid calculi lodged in the parenchyma of the kidney, one half of which was 5 cm. thick. The rays passed through this thick layer of tough tissue, and the calculi alone showed in the photograph. It will be a simple matter, therefore, preliminary to an operation, to take the photograph of similar calculi, and then compare them with the results of photographs taken through the patient.

Operation for Trifacial Neuralgia.

According to the "Hospital" the justifiability of the necessarily severe operations undertaken for the relief of this extremely painful affection is gradually being recognised, and the number of patients subjected to the modern operative procedures is undoubtedly on the increase. There are, however, some who hesitate to admit the value of surgical interference in these cases, among them Dr. Gilles de la Tourette.

In discussing the diagnosis of the condition, he says that the sensory root of the fifth nerve alone is concerned, and he lays particular stress on the "painful spots" where the branches emerge on the face, viz., the supra-orbital, palpebral (at the outer angle of the eye), nasal (at the inner angle), and the ocular points, all associated with the ophthalmic division of the fifth. Those associated with the second or superior maxillary division are the infra-orbital, malar, dental, and palatine; and with the third or inferior maxillary division, the tempero-maxillary, inferior, dental, lingual (along the side of the tongue), and mental points. In addition to these points of excessive hyperæsthesia, the whole side of the head, in some cases, is sensitive and tender. In less severe cases only one or two branches may be involved. There are two distinct varieties of trifacial neuralgia.

1. A benign and ephemeral variety, in which the pain is continuous throughout the whole course of the disease, with exacerbations of a shooting character.

It is often attributable to external irritation, such as cold, and may follow on influenza or other infective diseases.

2. In true tic douloureux, on the other hand, the symptoms are always paroxysmal, reaching their acme at once and subsiding with equal suddenness. In the intervals between the attacks there is complete freedom from pain. The pain is intense while it lasts, and the attacks come on with varying frequency, ten, twenty, or a hundred times a day, but are always of short duration. An attack may be excited by such physiological acts as talking, swallowing, coughing, sneezing, &c., all of which the patient tries to avoid as far as possible. Pressure over the tender spots to some extent relieves the pain, and this being resorted to very frequently may result in producing facial marks, or even deformities.

Vaso-motor and trophic changes often accompany the disease, such as injection of the eyes, œdema of the lids, nasal discharge, excessive salivary secretion, or herpetic eruptions. The essential feature of this variety in its persistence; the older the patient grows the shorter the intervals of freedom from pain becomes, and the more severe are the attacks.

The etiology of the condition is very obscure. In a few cases the nerve is pressed upon by tumours, syphilitic growths, meningitic patches, or fragments of broken bone, but in the great majority of cases no such definite cause is forthcoming, and the nerve disturbance has to be attributed to such constitutional conditions as gout, rheumatism, diabetes, and so on. Undoubtedly some cases show evidence of being hereditary.

Krause has found pronounced histological changes in the Gasserian ganglion, but none in the peripheral branches of the fifth nerve. Fowler thinks that the sclerotic changes in the vessels may be the essential pathological lesion.

Salol in Diarrhœa.

M. H. Fussell, M. D., after giving salol a lengthy trial arrives at the following conclusions: Diarrhœa, due to dietetic errors, and that which is common in adults and infants in summer, is well controlled by the administration of salol, bismuth

and chalk. Salol controls abdominal pain equally as well as opium; it is perfectly safe, having no bad after effects; it is especially useful in the treatment of the diarrhœa of children; it constantly corrects the factor of the stools; in the diarrhœa of typhoid it acts almost as a specific; it does not control the attacks of dysentery, but removes factor and relieves abdominal distress. The cause of diarrhœa should, if possible, be removed, but numerous cases will always remain in which drug treatment must be continued, and it is in these cases that salol and bismuth should be employed in preference to opium, reserving the latter for more severe cases in which constant movements of the bowels and distressing pain continue in spite of rational treatment.

The Action of Roentgen's Rays on Tuberculosis.

Lortet and Genoud (Clinical Journal) having experimentally produced tuberculosis in eight guinea-pigs by inoculation with tuberculous matter in the inguinal region, submitted three of the animals to the action of Roentgen's rays daily during an hour or more, for two months. Care was taken that the site of inoculation should be exposed to the radiation from the tube. After two months, the five animals left untreated all presented abscesses freely discharging, while the lymphatic glands in the neighbourhood were tumefied and puffy. All had lost flesh considerably. The three animals exposed to the rays had, however, gained in weight and were in good condition. No abscesses had appeared in them, and the inguinal lymphatic glands, of small size, hard and circumscribed, were diminishing daily. The authors regard their experience, which they admit to be limited and incomplete, as at any rate pointing to the possibility that the activity of the tubercle bacillus is impeded by exposure to the x rays; and they suggest that the method should be put in practice for the treatment of cases of superficial tuberculosis, as for instance, in tubercle of the pleura, or of the mesenteric glands. They believe that the thoracic wall, the lung tissue and the intestine, even if filled with alimentary matter, offer no resistance to the passage of the rays.

Narcotic Poisoning.

Dr. G. A. Gibson calls attention to the treatment of the effects of narcotic poisons by using strichnine to avert the paralyzing action of such drugs on the medullary centres. Narcotic drugs in lethal doses cause death by paralyzing the respiratory centre. In the cases of narcotic poisoning that have come under Dr. Gibson's notice during the last three years strychnine has been used hypodermically when there was any irregularity or interruption of the breathing that appeared to threaten a failure of the respiratory centre. The effect of the drug is immediately shown by the increased rate, more regular rhythm, and the greater depth of the respirations, and even in cases in which the breathing has ceased it began again after the administration of strychnine.

In the treatment of poisoning by narcotics, says Dr. Gibson, two things should be studiously avoided: 1. Making the patient walk, and flogging him to keep him awake. Such treatment has a tendency to exhaust the vital powers. 2. The use of alcoholic stimulants, which aid the action of narcotics.

The patient should be kept in the horizontal position, the respiration is to be carefully watched, and should there be the least sign of irregularity, or shallowness, or inequality in the breathing, gr. 1-150 or 1-50, according to the age of the patient, of sulphate of strychnine should be given subcutaneous'y, and may be repeated at intervals of an hour two or three times. If, notwithstanding this, respiration becomes very feeble, or ceases entirely, artificial respiration must be begun promptly. If the circulation threatens to fail in consequence of the poison affecting the motor mechanism, or of spasm of the arterioles caused by deficient oxygenation of the blood, it should receive prompt attention.

Strychnine may be used as a stimulant to the motor centres of the heart, and may be aided by the use of ammonia or ether. If artificial respiration has been thoroughly performed there should be no spasm of the arterioles; but should there be any, nitrate of amyl must be used. Strychnine may be used also in cases of threatened failure of the respiratory centre caused by the general anæsthesia.

Pelvic Diseases and Their Principal Causes; What Should the Laity be Taught Concerning Them?

Dr. John M. Duff, of Pittsburg, Pa., read a paper with this title at the recent meeting of the American Association of Obstetricians and Gynecologists.

He said that notwithstanding the fact that some of the prominent members of the medical profession had, in talks to the galleries, held the gynecologists up for ridicule and criticised them severely, he did not think any apology was due either the profession or the public for the character or results of pelvic surgeons. Those members of the profession who had been devoting themselves to the care of diseases peculiar to women, had in the face of revilings and professional and public prejudice worked patiently and persistently until they were now obtaining results of which they may well feel proud, results far beyond what the most sanguine expectations of the hardy pioneers of a quarter of a century ago led them to hope for. They were today charged with irrational radicalism, with an operative mania, which was gratified without a proper consideration of the ultimate benefit to the patient. Entreatingly they were urged to adopt more conservative measures, and thus stop the wholesale mutilation which was going on at present, which it is claimed is neither scientific nor humane. Sentiments such as these, endorsed by men of reputation, were eagerly taken up by the lay press as sensational news and advertised by pretenders as an endorsement of their methods of practice, and thus the laity, in the opinion of Dr. Duff, are taught false notions regarding the nature of pelvic diseases and their treatment. That there is a great amount of mutilation connected with pelvic surgery, he would not deny; but that regular pelvic surgeons were guilty of reckless despoliation was not, he thought, susceptible of proof. Pelvic surgeons could scarcely be held accountable for the work of general practitioners; and for the work of ignorant egotists and pretenders, who with brazen effrontery undertake operations of which they are not qualified by character or education, the pelvic surgeons disclaim all responsibility.

During the period of the evolution and upbuilding of pelvic surgery no doubt much of the work was crude, and perhaps too much was done by over zealous operators. That at this day, through mistaken diagnosis, operations are sometimes needlessly performed, no one would have the hardihood to deny; but that such cases are frequent as some critics say they are, Dr. Duff could not believe. He said the true pelvic surgeon was governed by nobler purposes, by more elevated aims. Conservatism in its true sense, the saving of life, relief from pain and the curing of the patient, was his watchword. Dr. Duff then dwelt at length upon various pathologic conditions which demand the attention of the pelvic surgeon.

Hereditary Syphilis of the Nervous System,

Dr. E. D. Schnabel, of Bethlehem, Pa., read an interesting paper on the above named title, before the Northampton Co. Pa. Medical Society. The concluding remarks received the applause of the meeting.

The pathology of hereditary syphilis of the nervous system is similar to that of the acquired form of the same disease. The lesions are produced in the same manner in both forms of the disease. There occurs a deposit either of the syphilitic virus itself or of a product of this virus. Wherever in the nervous system this virus, or its product, lodges, there forms a proliferation of cells, a growth of tissue and a consequent irritation and inflammation.

There are six (6) lesions of the nervous system, directly due to the specific virus: 1. Endoarteritis; 2. Meningitis; 3. Thickening of nerve sheaths; 4. Intercranial and interspinal osseous nodes; 5. Gummata; 6. Ventricular ependymitis.

There have been cases of hereditary syphilis of the nervous system in children only a month or two old, and it is likely to occur in the fetus. It usually appears in childhood, but it may not manifest itself until adult life.

The symptoms vary according to the nature, extent and location of the lesions. The more prominent symptoms are: hemiplegia, paraplegia, spasms and paralysis, limited to certain groups of muscles,

choreic movements, epileptiform convulsions and paralysis of special senses.

There is no pathognomonic symptom. When this disease is early recognized and properly treated in its incipency, the prognosis is good both as to recovery and long life. But when once the damage is done, then although proper treatment is given, the prognosis for living may be good, but for recovery of lost functions, bad.

Dr. S. reported the case of a little boy, three (3) years old, who is blind, speechless, and almost helpless in every way, both parents had tertiary symptoms of syphilis when the child was born; and closed his paper with the question whether the best treatment would not have been castration, both for the mother and father right after the discovery of syphilitic symptoms in each.

Pernicious Anæmia and Cord Changes.

The London Lancet says the association of changes in the cord with pernicious anæmia was first described by Lichtheim, and his observations have been confirmed and extended, especially by Minnich and Nonne in Germany and Bowman, James Taylor and others in this country. In a recent number of the *Nord. Med. Ark.*, Stockholm, Dr. K. Petren contributes a paper of great interest and importance, of which an abstract appears in the last number of the *Neurologisches Centralblatt*. He had examined the cords in nine cases of pernicious anæmia. In two of these there was clinical evidence of cord affection. In four of these cases the vessels were found to be affected with hyaline degeneration; in five were found scattered throughout the cord small hæmorrhages or patches of sclerosis which had been caused by hæmorrhages. In two cases in which no spinal symptoms were detected there was chronic degeneration of the posterior columns. In the first of the two cases with spinal symptoms, that of a woman aged thirty-six years, these consisted in impairment of sensibility, ataxy, and paresis of all extremities, especially the lower, loss of knee-jerks, and incontinence of urine. Throughout the cord, except in the sacral region, there was degeneration of the posterior columns extending as high as the medulla. In the

cervical and upper part of the dorsal cord there was complete degeneration of Goll's columns; in Burdach's columns there were patches of sclerosis more or less confluent, while in the lumbar region the whole posterior columns were similarly degenerated. The second case was that of a man forty-two years of age who had been troubled with weakness in the legs three years before. Under treatment this passed off. But two years later the weakness came on again and increased so that the patient was unable to walk, and before death there was evidence of pernicious anæmia and of severe spastic paraplegia in the legs. After death there was found marked degeneration of the posterior columns of the cord most marked in the upper part and gradually lessening towards the lower end of the cord. The lymph spaces round the vessels also were swollen and filled with granular bodies and detritus. According to Petren there are usually in the cord in cases of pernicious anæmia small hæmorrhages which may lead to some sclerosis without clinical manifestations. The vessels also not uncommonly have thickened walls. In many cases, however, of pernicious anæmia there is a true spinal cord affection which is not to be regarded as merely coincident. From the anatomical point of view no doubt differences are found in the affection of the spinal cord in different cases, but these differences are to be explained by the manner in which the process develops in different cases. Petren is of opinion that those cases, as regards the affection of the spinal cord, make up a special group, and that probably a toxic process underlies the affection of the spinal cord as well as of the blood.

Albuminuria.

Harris, says the Hospital, has devised a test of extreme delicacy for albumose. He finds that true peptone hardly ever occurs; that the albumoses are formed by the digestive action of microbes on the albumens of the body, and are thus indicative of infective action or suppuration. They are produced in excess, absorbed by the blood, and excreted by the kidneys. He claims to have diagnosed the existence of pus by means of

the presence of these albumoses. To discover them he boils the urine with lead chloride and salicyl-sulphonic acid, filters, cools, and precipitates the excess of lead with sulphate of soda. The filtrate is treated with a few drops of salicyl-sulpho-tungstate of sodium, which causes a cloud with albumoses or peptone. This disappears on boiling, and the test is so delicate that it will show one part in 50,000. Lockhart Gillespie quotes Osler as doubting the clinical importance of albumosuria, and points out that a part of the albumen excreted by the kidney may be changed into an albumose in the urinary tract, or on standing, though not to any large extent. He reports two cases of gouty origin with little or no albumen and no tube casts, but both presented albumoses. Here there was no pus or infectious disorder, and he suggests that, as according to Horbaczewsky there would be considerable leucocytosis, the breaking up of these corpuscles might bring about the presence of albumoses. As the clinical symptoms of these patients were grave it remains to inquire whether albumoses may not be symptomatic of lesions as dangerous in certain cases as those shown by a quantity of albumen. Various views have been taken of the effects of either and chloroform on the kidney. Friedlander found that 16 per cent. of his cases showed no albumen after the use of chloroform, thirty-seven a transient albuminuria, and in forty-seven who had albumen previously it was nearly as often increased as diminished. A writer in the *Therapeutic Gazette* finds that the most recent investigations have gone to prove the harmlessness of anæsthesia. Thus Weir reported that either at the most caused only a slight, temporary albuminuria; Feuter noticed it but rarely, Buller once in five hundred cases, Korte in one per cent., Selbach even denied that repeated etherization ever produced nephritis in animals. Kant and Mester, indeed, after prolonged chloroform narcosis, met with an unknown sulphur compound, and Becker discovered that a temporary acetoneuria usually follows anæsthesia, and in diabetics this adds to the risk. Barbacci and Bebi, however, found albumen in 29 per cent. after ether, and 18 per cent. after chloroform, and while the kidney lesions were temporary after either, they were of a

more permanent type when caused by chloroform. Eisendrath noticed albumen to the extent of 25 per cent. after ether, and 32 per cent. after chloroform in patients previously free from it. These different results partake of the uncertainty of most statistics on anaesthesia, but newer and more perfect methods have at least not shown any increase in the albuminuria which has long been known to occur in the cases.

Among new tests for albumen we notice Barral's Aseptol, which is highly sensitive but precipitates mucus and peptones; also Yavorovsky's which contains one part of molybdate of sodium, four of citric acid, and forty of water. A drop added to filtered urine with an excess of carbonate of soda gives a cloud in the presence of albumen. Pierre Maril, in discussing a case of cyclic albuminuria, takes the view that his patient's affection was a nervous one, dependent on irritation of the sympathetic. It had existed at least seven years, disappeared when lying in bed, and was accompanied with peculiar sensations in the lumbar region before a thunderstorm, and the patient suffered at times from hemidriosis. It was thus analogous to a migraine rather than to nephritis. Albuminuria in syphilis is, according to Heller, very rare in the eruptive stage, but he considers that it often arises from the mercury employed in the treatment. He examined over 300 patients in a syphilis hospital and found that it generally appeared on the twelfth day of mercurial treatment, more often after inunction than after injections, where the amount used was less. Neither treatment was ever commenced until secondary symptoms were seen, and the albuminuria, indeed, was neither severe or common. Walti shows that atropine diminishes the secretion of urine independently of the pressure or altered metabolism. However, his experiments were made on rabbits with larger doses than could be given to men. Alcaptonuria has been noted in a fatal case of tuberculosis. The urine became dark on exposure to air or when alkalis were added, contained much indican, and reduced copper salts. It has only been seen hitherto as a chronic disease. The presence of casts in the urine without albumen is shown by the centrifugal machine to be far more frequent than was supposed.

Kossler found them in 29 cases of fever and other disorders. Though numerous and of all kinds he does not attach much importance to them and in some instances, from these very cases, the kidneys appeared normal after death.

Hot-Air Baths in Albuminuria.

At the recent French Congress of Internal Medicine (British Medical Journal) Carrien of Montpellier, expressed his preference for hot-air baths over vapour baths and hot-water baths in the treatment of albuminuria. The hot-air baths fulfils two principal indications: it relieves the kidney by the abundant sweating which it reduces, and it regulates the organic exchanges. The method of administration is very simple; all that is required being as ordinary bed with a cradle to raise the bed clothes, and a spirit stove with pipe directed under them. The patient's head being outside the clothes, the rest of his body is kept exposed to the hot air (40° C.) for twenty minutes. This is repeated every three or four days. The immediate physiological effects are a not disagreeable feeling of warmth, profuse perspiration accompanied by acceleration of the pulse (on an average about 20 beats per minute above the normal rate), and rise of temperature from 1° to 2° C. Respiration is not in the least embarrassed. There are no ill-effects except palpitations and headache during the first baths. These symptoms last for an hour after the bath, then gradually pass off; the perspiration is the effect which lasts longest. The therapeutic effects are shown modifications in the urine; the amount diminishes the day after the bath; then on the following day there is marked but transient polyuria, as though the kidney acted better after the short rest. The density of the urine is in inverse ratio to the amount. The urea undergoes no change. The proportion of albumen becomes much less the day after the bath, increasing on the ensuing days, but not reaching the former amount. Gradually the diminution becomes persistent, and the albuminuria may even disappear. Hot-air baths are indicated in cases of subacute and chronic nephritis of the epithelial form; they are contraindicated when there is coexisting

arterio-sclerosis or any inflammatory affection of the skin, and in nervous conditions.

On the Relation of Auto-intoxication to Neurasthenia.

The recent doctrine of auto-intoxication has found many adherents, especially in France, where it has been propagated by Bouchard, Mathieu and others. We know that nitrogenous foods produce, by decomposition, poisons, which are as injurious as the strongest vegetable alkalis. Under certain conditions, such as the presence of numerous micro-organisms, stagnation of the bowel contents, decomposing food or drink, toxic products are absorbed into the blood and cause a series of symptoms, such as headache, vertigo, prostration, &c. The nervous system is principally affected by auto-intoxication. In most cases a certain degree of atony of the bowel occurs. A troubled life at high pressure, want of bodily exercise and a diet rich in nitrogenous foods are important factors for the production of the ptomaines that cause neurasthenia. The bowel atony may be treated by massage, faradisation, and gymnastics; the fermentation by creosote, menthol, guaiacol. *B* naphthol, lactic acid, resorcin or bismuth.

The Administration of Quinine in Suppositories.

Dr. J. Dunbar Bunton writing in the British Medical Journal calls attention to a method of administering quinine which he believes is new. He says, I have adopted it for some months in treating cases of fever, especially malaria, with the greatest advantage. This treatment consists in giving quinine by the rectum in suppositories. I was led to try this way of giving quinine by the difficulty I was confronted with in the case of one of my patients, an American lady who was suffering from an attack of malarial fever, but who could only take quinine by the mouth with the greatest discomfort, nausea, indigestion, and had headache, with much ringing in the ears; this even with small doses. I got the local chemist to make me six suppositories containing each 15 gr. of the sulphate of

quinine. Of those she had one every six hours. This treatment was effectual in getting rid of the fever within twenty-four hours, and, to her joy, without any ringing in the ears, etc. The highest point of temperature just before the first suppository was 104° F.

Since then I have been treating all cases of fever where quinine was indicated by this method, and I think I have proved its value. For the fever rapidly abates, and that without any quinine discomfort to the patient. Only in the most susceptible cases to quinine is there a slight ringing in the ears; in other cases it is absent. If, therefore, the end be gained, why should we continue to give it by the mouth when it is better borne given by the rectum, and this especially in the case of children who are difficult patients at times when the medicine is not sweet?

I prescribe the quine in suppositories containing 10 to 20 gr., one suppository to be given every four, or in some cases every six hours.

The Treatment of Chronic Varicose Ulcers of the Leg.

Dr. W. McAden Eccles in The Hospital says some of the common and frequently occurring ailments of the body are those which have defied successful treatment at the hands of many practitioners. This is most undoubtedly true of the affection known as the chronic ulcer of the leg due to varicose veins of the lower extremity.

While varicosity is prone to be present in persons of all ranks and of both sexes, yet it is particularly the working classes who are frequently attacked by the distressing condition brought about by an ulcer.

The dilatation of the superficial veins leads to much failure in the proper nutrition of the lower limb, and this particularly so near the ankle. As a result a crop of chronic eczema associated with much pigmentation often follows. I am inclined to think that the impeded return of the blood supply to the skin frequently sets up irritation, which leads the patient to scratch the part, and that the eczema is the outcome of this manipulation. Be that as it may, it is a certain fact that a person suffering from

varicose eczema, as it is termed, is in a state which may be called a pre-ulceration one. A slight excoriation produced by rather more energetic scratching of the irritable part, or a blow causing a slight breach of surface, is, as it were, a match to the fire, the starting point of a trouble which may last for years, and be so resistant of cure that it becomes a heavy burden to the sufferer, and may lead him to despair as to the possibility of complete relief short of losing the offending part.

An able-bodied man, the bread-winner of the family, is thus laid aside from work, or is only able to perform his duties in chronic misery; a woman endures untold suffering for months, even years, is often under treatment, and gets no better.

Such are the oft-told tales of woe, all the outcome of a chronic ulcer of the leg. And yet one has to confess that these cases are very trying ones for the medical man to treat, and equally disappointing in the poor success which so persistently attends all his efforts.

What is at the bottom of all this failure? Some say it is want of rest to the part; others state it is lack of oxygen, and urge that a supply of this gas will rapidly bring about the desired healing; and again, others look upon the varicose veins themselves as the real factor in causing the continuance of the trouble. No doubt that possibly all these play a part, but one is forced to the conclusion that the septic condition of the ulcer is far and away the most important reason for its failure to cicatrise, and the very extension even of the sore. It is an every-day observation that a septic ulcer is unhealthy to the utmost degree; it discharges copiously, it is very painful, it is surrounded by a wide area of acute inflammation, or of chronic induration, and instead of showing signs of diminishing in size, it steadily but perceptibly increases in area. If therefore the patient is to be efficiently treated it must be our aim to bring about asepsis, or at least to lessen the amount of septic material present as soon as possible.

A patient presents himself with a varicose ulcer; he is told to keep it clean, to apply some ointment daily, and to get as much rest as possible. He follows the directions given to the best of his ability—though this may undoubtedly be

small—and he finds little or no relief, and returns much dissatisfied, and to instil the same feeling into his medical attendant.

I am convinced that a careful and thorough treatment of such a patient by the surgeon himself, with a view to the extermination of the septic organisms, would lead to a large number of the beds in our infirmaries and hospitals being emptied of their occupants.

How then are these cases to be dealt with? I would venture to detail the line of treatment, more or less on the lines of Professor Unna's method, which I have found to be eminently satisfactory.

I must be clearly understood that this way of treating ulcers of the leg requires personal attention on the part of the practitioner himself, takes up a considerable amount of time, and needs somewhat expensive materials.

Briefly, the following are needed: Soap and water, carbolic acid solution 1.40, or, better, perchloride of mercury solution 1-2,000, carbolic gauze bandages, a modified Unna's paint or paste, web bandages, an ordinary glue pot, and a good sized paint brush.

The paint or paste used consists of boracic acid, zinc oxide, gelatine, glycerine, and water.

The following are the proportions of these several ingredients and the method of making the paste: R—Pulv. acidi borici, 1 part; pulv. zinci, 5 parts; glycerini, 8 parts; gelatini, 5 parts; aquæ distillatæ, 9 parts—all measured by weight. Rub down in a mortar the zinc oxide and boracic acid with a portion of the water and glycerine. Dissolve the gelatine in a saucepan with the remainder of the water and glycerine by the aid of heat. When dissolved mix the two together, and while hot pour into a suitable mould, such as shallow metal dish. When cold it will be found to have set into a firm jelly, and may be cut into pieces of a convenient size. The process of dealing with the ulcerated leg must now be considered. The whole surface from the foot to the knee should be thoroughly scrubbed with soap and water, a cleansing which has probably not been its lot for many a day.

This will remove ordinary dirt and the accumulations of dried discharge, decomposing ointment, and other *debris* around

and upon the ulcerated surface. This process of cleansing will give rise to some pain when the actual sore is washed over, but this is essential to ultimate success, and must therefore be endured by the patient.

The ulcer and a wide area around it is next to be swabbed with one or other antiseptic solution. Even at this stage of the proceedings the ulcer will seem to look more healthy, and it is certainly much cleaner.

Then carbolic gauze bandages are applied, including the foot and passing right up to the knee. There should be at least four layers of gauze over the ulcer itself, and two layers elsewhere.

The paste has, during these manipulations, been melted in the glue-pot, and is now ready to be applied hot; care, however, being taken that it is not of such a temperature as to scald the leg.

It is to be applied from the ankle to well above the site of the ulcer, and round the complete circumference of the leg. No very thick layer is needed; in fact, it is an objection to have too liberal a quantity laid on. Another layer of gauze bandage should be placed over the paste, and outside all, from the foot to the knee, a web bandage is smoothly adjusted with a fair degree of rightness.

As the paste cools it contracts, and therefore the limb is encased in an antiseptic dressing, producing a beneficial degree of pressure on and support of the veins and the ulcers.

Dr. Milner Fothergill wrote: "The combination (Fellows Hypophosphites) is an excellent one—the best yet made, to my knowledge. It is a happy thought. It is a good all-round tonic, specially indicated when there is nervous exhaustion. It is readily digestible, and had given much satisfaction in my experience of it.

"Fellows' Syrup of Hypophosphites Compound is as standard as Squibb's Ether, P. & W.'s Morphine, Hubbard's Oxide of Zinc, or any other staple agent which long experience and custom have connected with some preferred maker's name. It is hardly possible that any physician in the country is not familiar with and a prescriber of Fellows' Syrup."

Extract from *Therapeutic Gazette*, June 15th, 1896.

Diphtheritic Conjunctivitis and Its Treatment With Antitoxin.

Prof. Ewetzky has given in the *Quarterly Journal* the history in the total of two cases of this affection. Both were children (girls), one a year old, the other 3½ years. The former was pale and badly nourished, its mother a beggar, living in abject poverty and filthy surroundings. The latter, well fed and apparently strong, belonged to a family in fairly good circumstances, but living in a house overcrowded with lodgers. In Case 1 source of infection could not be traced. In Case 2, the probably source was from a child which had died of throat affection, and whose father was in service in the patient's house. In both cases there was considerable swelling of the lids (in Case 1 the left eye was affected, in the other both eyes). The upper lids were lengthened so as to cover edge of lower lid. In Case one the swelling was soft, and the lids could be easily everted; in Case 2 it was tense and eversion was difficult, the tarsus being thickened, infiltrated, and having lost its elasticity. In Case 1 the false membrane was of a greyish-yellow colour, in Case 2 it was greyish. In both it could be separated from the conjunctiva fairly easily. In Case 2 there was a sore on the metacarpophalangeal joint of right index finger. This was covered with crusts; between which there was a greyish false membrane. Bacteriological examination in both cases showed rods present not differing from Löffler bacillus. Cultures were successfully obtained, also giving same bacillus, and with material from these guinea-pigs were inoculated, resulting in their death, after symptoms characteristic of diphtheria. Author considers Case 1 presented characteristics of croupous conjunctivitis, whilst Case 2 was typical of diphtheritic conjunctivitis. He believes that both these forms are due to one poison, which shows various degrees of virulence. His treatment consisted in injecting antitoxin, and the results recorded are very good: "In both cases improvement was noted on the day after the first injection." Author, whilst using antitoxin injections, would limit local treatment to washing of lids and conjunctival sac with an *aseptic* fluid.

Meningitis in Enteric Fever.

Kuhnan (British Medical Journal) observes that the disproportion between the cerebral symptoms in typhoid fever and the morbid lesions found in the nervous system have long attracted attention, and that these pseudo-meningeal symptoms are well known to experienced observers. Purulent meningitis has occasionally been seen in enteric fever. It has been put down as a mixed infection due to pyogenic micro-organisms, but it has been shown that the typhoid bacillus has pyogenic properties, and can produce this purulent meningitis. The author relates a severe case of enteric fever in a man, aged 32, accompanied by hemorrhage and complicated by purulent meningitis. A bacteriological examination of the blood during life showed colonies of the typhoid bacillus. The cerebral symptoms did not appear until the thirty-second or thirty-third day of the disease. The patient rapidly became somnolent, the pulse irregular, and the urine and feces were passed unconsciously. The pupils were equal, but reacted sluggishly. There was slight retraction of the head, but no optic neuritis. Death occurred on the thirty-sixth day in profound coma. The typhoid ulcers were nearly all in process of healing. Numerous typhoid bacilli were still present in Peyer's patches. There were slight microscopic changes in the renal epithelium. After the removal of the dura mater the convolutions were seen to be covered with purulent exudation. The pus was intimately connected with the pia mater. The presence of the typhoid bacillus in the mesenteric glands, spleen, and exudation over the convexity as well as at the base of the brain was proved bacteriologically. Here the purulent meningitis was a metastasis of the typhoid bacillus. The bacillus had penetrated into the blood, as shown by the bacteriological examination made during life, and had settled down by predilection in the membranes of the brain.

Thyroid Treatment of Insanity.

At the Cumberland and Westmorland Asylum, England, thirteen cases were selected for treatment with thyroid ex-

tract and the procedure suggested by Drs. Macphail and Bruce was strictly followed. Five of the patients were men and eight were women; five were cases of mania, seven of melancholia, and one of slight dementia; their length of residence in the asylum varied seven months to eight years eight months, and their ages ranged from eighteen to sixty years. The cases seemed to be just of the type in which thyroid treatment has been claimed to be so efficacious; and though in several of them there was still hope of recovery under ordinary treatment, yet in the majority there was the fear that they might degenerate into chronic inmates of the asylum. The patients were kept in bed during and for some days subsequent to the treatment, which extended on average over eight days, large doses of thyroid extract (60 grains daily) being given. In almost all the cases the effects that have been noted during the administration of such doses were well marked: rise of temperature slight in most cases, but on one case up to 102° (in another case eight days after stoppage of thyroid the temperature rose one evening to 103.8° , but fell to normal next morning); rapid, irregular, and feeble pulse, with tendency to faintness in some cases; loss of appetite, sometimes nausea and vomiting; flushings and increased moisture of the skin; loss of weight. Changes in the mental state during treatment were as a rule very noticeable; patients previously dull became brighter and more talkative; some became more depressed and emotional, others become subacutely excited; in one case a patient who had been restless and noisy prior to treatment, became much quieter and more reasonable during treatment, and the improvement was maintained for a short time afterwards; one patient suffering from melancholic stupor became under treatment restless, obstinate, and violent, and refused her food; several cases showed no mental change whatever. After stoppage of thyroid, the patients were given citrate of iron and quinine; they gradually regained weight, but in very few cases did the weight rise above what it was before thyroid treatment. The mental changes that were noted during treatment were for the most part very evanescent; in no case so far (three months after treatment) has there been any permanent improvement,

and in several instances the mental state has deteriorated considerably; one patient who before treatment was dull and lethargic, became brighter and more talkative during treatment, but has since become more dull than ever and has developed very dirty habits; several other patients have exhibited similar symptoms. In this asylum the results of thyroid treatment have thus been by no means satisfactory, although the endeavour was made to choose as suitable cases as possible, without, of course, including those which were on the fair way to recover by ordinary means—a proceeding which would have rendered the trial of thyroid extract valueless.

Mental Overstrain In Education.

Dr. G. E. Shuttleworth at the recent meeting of the British Medical Association urged that in spite of much that had been written on the subject there was still evidence, in certain departments of education, of overpressure resulting in mental overstrain. Briefly referring to true and false views of what education meant, and to the necessity of treating each pupil, not merely as a unit in a scheme, but as an individual possessing inherent—not to say inherited—peculiarities both of mind and body, he pointed out that "overpressure" was not an absolute quantity, but varied in relation to the personal factors in a given case. Adverting to past abuses, he expressed the opinion that the incidence of overpressure did not now fall, as was the case when Sir James Crichton Browne made his report some twelve years ago, especially upon the dull children in our elementary schools. Under the new code it was rather the bright children who were apt to suffer from abnormal nerve signs, chorea, etc., under the stimulus of examinations and inspections at which they were expected to maintain the reputation of their schools. Precocious children were often the offspring of neurotic parents, and such were apt to break down under any mental strain.

In secondary education, similarly, the incidence of mental overstrain was most felt in preparatory schools, and by young boys of promise, who were unhappily often sacrificed to the Moloch of com-

petitive examination. In public schools and higher grade schools generally for boys, the systematic inclusion of outdoor games in the school routine was a great safeguard against overpressure. In high schools for girls, however, the risk of overstrain was much greater. There was seldom adequate provision of outdoor exercise and recreation, and, too frequently, there was an utter disregard by the school authorities of the physiological conditions of building womanhood. Girls were expected to learn all that either of corresponding age were taught, music and other feminine accomplishments being superadded. Could it be wondered at that, considering the conscientiousness in preparation and the keen spirit of emulation displayed by girls, an overloaded curriculum too often eventuated in breakdown? There was more elasticity in the women's colleges than in the high schools; but the strain of frequently recurring examinations often proved trying to those whose antecedents were neurotic.

The etiological factors conducing to mental overstrain were discussed, special reference being made to the predisposing influence of neurotic or tuberculous heredity, of malnutrition, and of menstrual irregularities, as well as to undue stimulation of brain cells.

Amongst symptoms denoting overstrain were noted such as the following. In young children a wearied expression, with bagginess of lower eyelids, a want of tonic and balance in the muscular system, with twitchings, stammerings, jactitations, and chorea. In those approaching puberty, further indications of neurasthenia appeared, such as aprosexia (inability to sustain attention), heterophrenia (a tendency to answer wrong), neuralgia, sleeplessness or sopor, a general want of "pluck," and the condition which has been described as *anorexia scholastica*.

As regards treatment, prevention was better than cure; and nothing effectual could be done unless the patient were withdrawn from the conditions causing the overstrain. Then good bracing air, judicious exercise (such as tennis, rowing, or bicycling), diverting occupation, and suitable feeding were of importance; and care should be taken that no time was left for morbid introspection, for neurasthenia tended to melancholia. Ferruginous tonics were often very useful;

and so were maltine and cod-liver oil, which would promote that comfortable condition of fatness which is, as a rule, closely allied with mental contentment.

Post-Influenzal Insanity.

Dr. Rutherford Macphail before the recent meeting of the British Medical Association read an analysis of 20 cases of post-influenzal insanity admitted under his care into the Derby Borough Asylum in the five years ending December 31st, 1895. He included only cases among the recent admissions whose insanity was attributed to influenza or who were reported to have had an attack of influenza a few months previously. This represented 4.8 per cent. of the admissions.

Of the 20 cases, 9 were men and 11 women. The youngest patient was a lad aged 18, the oldest a man aged 71. The average ages were, for men, 37.6; for women, 39.2. The largest number of cases (8) occurred in the fifth decade. Hereditary predisposition to insanity was admitted to 6 of the 20 cases. In all except 2 the attack of insanity was an initial one. As to the form of mental disease, melancholia occurred in the cases of 3 men and 7 women, mania in 5 men and 4 women, and 1 man was a general paralytic. Fifty per cent. of the cases were therefore melancholics, a larger proportion of melancholia than usual, for the records of the asylum during the five years in question show only percentage of 20 melancholics to all admissions. The type of melancholia varied from simple depression to the acute forms, with well-marked delusions. The delusions most common in the maniacal cases were those of suspicion and of poisoning. Four of the cases were actively suicidal, and had made attempt on their lives at home.

The results was as follows: Among the men, 4 recovered, 2 were relieved, 1 died, and two are still under treatment and are chronic. Of the women, 8 recovered, 1 died, and 2 have become chronic. All the melancholics recovered except 1 woman, who died. The average residence in the asylum of those who recovered was three months for men and four months for women. These members are too small to permit of any definite

conclusions, and accordingly no attempt was made to dogmatise. It was, however, worthy of note that in the case under review the average percentage of recoveries to the total admissions was higher than usually obtains in public asylums, while the average period of asylum residence was considerably lower.

The editor of the Southern Clinic, Richmond, Va., who was so badly damaged by the storm of September 29th, as to have to rebuild and refit his sanatorium, could be greatly helped by all who would subscribe for that excellent Journal at the usual price of \$1.00 per year, and receive in addition, as a premium, post paid, a beautiful leather Visiting List, a copy of the Physician's Companion, cloth; a copy of the Physicians' and Surgeons' Pocket Dictionary of Medical Terms, and the four Lectures on Electricity in Genit.-Urinary Diseases by C. A. Bryce, M. D., M. E., Professor of Surgery in the Nat'l College of Electro-Therapeutics, Indianapolis. All of this for one dollar. In writing for these good things be sure to say "send Clinic and premiums as mentioned in the Charlotte Medical Journal," or you will only get the Clinic. Address The Southern Clinic, Richmond, Va.

We refer our readers to the advertisement of Palpebrine which appears for the first time in this number. This product will be found useful in the following forms of external eye diseases:

Simple, acute, catarrhal, venereal strumous and chronic conjunctivitis, acute and chronic blenorrrhea of the conjunctiva, inflammation of the lachrymal sac, blepharitis, etc.

Palpebrine is indicated in all cases where an accurate antiseptic solution of known quality and quantities are required.

Palpebrine is superior in its action to the remedies now in use. It contains all the constituents of Aqua Conradi, as recommended by the renowned professor of the Vienna University, Ferdinand von Arlt, (see Clinical Studies on Diseases of the Eye by F. Ritter von Arlt translated by L. Ware, page 23). But to these are added a number of other agents which will prove Palpebrine to be of much greater value and give it a broader field for action.

On the Medicinal Treatment of Intestinal Catarrhs in Infants.

Dr. A. Hock, of Vienna, says: In most cases occurring in infants simple dietetic treatment is sufficient to remove even severe affections of the intestines and dyspepsias, though in all cases medicinal treatment is not to be ignored. The medicines worthy of our notice are in the first place muriatic acid and pepsin or papain which tend to establish a better digestion, thus preserving the intestine from irritation and promoting recovery. An excellent remedy, which acts as an antiseptic to the whole digestive tract as well as a weak astringent, is resorcin, in doses of 0.01 to 0.05 Gm. (Resorcini 0.2 to 6.100, in teaspoonful doses).

Where the intestinal disease is, however, of longer duration, or the weakness of the patient is an indication for a more rapid assimilation of nourishment, we must fall back upon a drug which exerts a wide local influence on the intestinal canal. In such cases the salts of bismuth and tannin are most important remedies. The salts of bismuth have an excellent temporary action, and are of great value in catarrhal inflammation of the intestine.

Bismuth Salicylate, 0.5 gm. three times a day, may be given to infants; these preparations do not exert any long continued effect, however, so that in more chronic cases, their administration must be continued for quite a long time, and relapses are likely to occur when they are discontinued.

The most energetic remedy in this respect, however, is tannic acid, which is best given pure, in a one half to one per cent. solution of some corrigent. Of less service are the tinctures containing tannic or gallic acid, as tincture *ratanhiæ*, catechu, etc., so also the much used and abused Russian tea. Decoction of *lig. campech.* has much less power than tannic acid, but has the advantage of not affecting the appetite, and being nearly always well borne. Tannin, cotoin, and tinct. of *coto.* are pure styptic remedies. Opium should not be used in the systematic treatment of the intestinal disorders of infants, at least it is not a remedy which should play a prominent role in these cases.

During late years tannin, therefore, has again gained a prominent place in the therapeutics of intestinal catarrh. If we have to deal with comparatively light affections, where with one days fasting, followed by a strictly milk diet for 2 to 3 days, and the simultaneous administration of tannin the diarrhœa can be checked, this remedy is sufficient for our demands. When, however, it is necessary to continue the drug for any length of time, it will be observed, that although the diarrhœa ceases, the child's general condition and weight do not improve. The reason for this is that the tannin as far as it is active in the stomach, forms with the albumin a combination which is not very soluble, and does not exert much action in the intestine, besides curtailing to some extent the secretion of the gastric mucous membrane. We are, therefore, compelled, where the disease is of long standing, after giving the tannic acid for 2 to 3 days, to substitute muriatic acid, returning again to tannin, or some preparation containing it, after a few days, thus losing time before a cure is obtained.

For these reasons the discovery of an acetyl combination of tannic acid by H. Meyer, which is not decomposed in the acid secretions of the stomach, but only in contact with the alkaline fluids of the intestinal tract, has been an important addition to our pharmacopœia.

This preparation only becomes active when the tannic acid is liberated by the splitting of the acetyl groups. This occurs only in a very small degree in the mouth, through the action of the saliva, which can be proved by allowing a quantity to remain in the mouth for some time, when the astringent taste of tannic acid is gradually perceived.

However, the quantity which is decomposed by the saliva forms only a fraction of a milligramme, which cannot produce any disturbance of the stomach. In the stomach itself the drug is insoluble if no abnormal fermentation process is present which produces an acid reaction. The splitting up of the preparation takes place in the intestine under the influence of the alkaline intestinal secretions, and reasoning by analogy we may assume that the more intense the action of bacterial agents in the intestine the greater the extent of the decomposition of the drug, so that the effect is strongest where most neces-

sary. During normal digestion and rapid peristalsis, the greater part of the drug probably passes through the intestines unchanged, particularly if large doses are given, thus explaining the safety of large doses; while other tannic acid preparations, as is well known, are not always free from objection, as they have a tendency to produce enteritis membranacea.

The different authors who have used this remedy, Kunkel, Drews, Biedert, Escherich, Bachus, Hewitt, and others, have all expressed themselves in terms of praise, and I can only do the same.

As regards the dose of the remedy, I have given it in very young children (up to 5 months of age) in doses of 0.1 gm., in older ones in 0.2 gm. doses, and have found this sufficient.

On account of the preceding theoretical considerations, I have ordered the remedy after meals, at first usually six times a day, later four times daily.

R Tannigen.....2.0
Sacch. Lact.....3.0

Divid. in chart No. x.

Sig. One-half powder every four hours.

Children above 1 year of age a whole powder.

In some cases I have combined it with muriatic acid.

The action is very prompt, a diminution in the number of stools occurred within 24 hours. The admixture of mucus disappeared generally on the third day, and the number of stools decreased about the same time to one or two in 24 hours.

The following cases have been treated by me:

1. Joseph Willert, 10 months old, artificially fed, has 6 to 8 mucous stools a day. Was cured after three days treatment.

2. Alois Madiots, 11 months old, artificially fed, rachitic, has 3 to 4 passages daily. After using tannigen for three days only one passage daily. Was ordered cod liver oil with phosphorus.

3. Marie Schipel, 20 months of age, has a diarrhœa for two weeks, following an error in diet. After taking tannigen for three days in doses of 0.8 gm. a day, stools reduced to one daily. On discontinuing the remedy, diarrhœa reappeared which disappeared, however, after taking 2.0 gm. more of tannigen.

4. Josefa Fuchs, child at the breast,

suffers with bronchitis, diarrhœa, numerous green passages; after administration of 2.0 gm. tannigen, cured; the bronchitis also has improved.

5. Gyula Linder, 3 months old, artificially fed, numerous green stools, containing much mucus; cured after three days treatment.

6. William Strond, 7 weeks old, cured in three days.

7. Victoria Holly, 8 months old, a rachitic child, numerous discolored stools with much mucus; after three days only two stools a day. Cod liver oil and phosphorus ordered.

8. Franz Watzl, 3 years old, was dismissed cured after five days treatment.

9. Fanny Halloki, 7 months old, suffering with intestinal catarrh for two weeks. General appearance bad, numerous stools (mucus); temperature 38 degrees. Time of treatment, nine days: after that normal stools.

10. Franz Lonecky, 9 months old, was cured after four days treatment.

11. Marie Schwarz, 7 months old. Vomiting and numerous green stools. acid muriat. 1.0:100 and tannigen.

After six days vomiting ceased, and stools were reduced to one or two a day.

There were treated altogether 15 children (12 under 2 years of age) for intestinal catarrh; the duration of treatment was three days on the average; in one case it was seven days; sometimes improvement in the stools took place within two days. To rachitic patients, with a tendency to diarrhœal stools, tannigen was given before the usual treatment with cod liver oil and phosphorus, and in every case with good results. In four cases of influenza with gastro-intestinal symptoms in older children (3 to 5 years of age) salicylate of bismuth acted decidedly superior to tannigen; but in cases of intestinal catarrh, following a pneumonia, tannigen did very good service.

In the diarrhœa of tuberculosis it proved very beneficial for the time being, as Escherich has also observed.

The diet, it should be remarked, was the same in all cases. Young children were given milk, and a 7 per cent. solution of sugar of milk, in equal parts. Children over 8 months of age received undiluted milk, and no other food, with strict directions as to the time of feeding.

According to my experience the course

of the cases treated by tannigen was decidedly shorter than under the expectant treatment alone, or that with resorcin. Tannin also materially shortens the duration of the disease.

In acute dyspepsia muriatic acid and dieting are the sovereign remedies, sometimes in connection with washing out of the stomach.

It goes without saying that the children should receive their nourishment sterilized. Careful cleansing of the bottles with *sapo viridis*, as Heuser recommends, and a careful boiling of the sugar of milk solution is not to be omitted. The intervals between meals, should be about 3 hours; and successful results will usually be obtained even when the Soxhlet method cannot be used.

If vomiting is absent, and the stools contain only a small amount of undigested material, tannigen may be administered at once, otherwise it is advisable to precede its administration by abstinence for one day (muriatic acid and soda water being allowed as drinks). As already mentioned the remedy exerts no disturbing effect upon the stomach, so that, even where there is a tendency to nausea, it is usually retained.—*Wiener Medizinische Blätter*, No. 30, 1896.

Fatal Septicæmia Due to the Micrococcus Tetragenus.

Chauffard and Ramond in the Edinburgh Medical Journal points out that the virulence of this micrococcus, which has been found in the mouth of healthy persons, and was detected by Koch in tuberculous cavities, is proved by numerous recorded cases, in which it has caused suppurations, generally in the cervico-facial or cephalic regions. In the two following cases its effects were fatal: A girl of 15 died with typhoid symptoms about eight weeks after the commencement of a severe influenza; the necropsy showed multiple suppuration of the joints, acute purulent pericarditis, abscess of the myocardium, pulmonary infarctions, and abscesses of the liver and kidneys. All the abscesses had a typical appearance of fatty caseation, and the brown effusions in the pleura and pericardium had numerous oily drops on their surface. The tetragenus was present in all the lesions.

A young man of 18 also died with symptoms of secondary infection, secondary to suppurative arthritis of the right knee, which, when aspirated, gave a pure culture of the *M. tetragenus*. The microbe was also found (with others) in the scrapings of an ulcer on the patient's tongue opposite a carious tooth. In both cases the cultivations of the micrococcus proved virulent to animals, and the pus in the consequent abscesses had the same characteristic appearance.

Stimulants Are Preferred to Depressants.

By Dr. W. F. Waugh, Professor of Practice, Illinois Medical College.

It is characteristic of phenylacetamide that its greatest triumphs are won by combinations containing this drug, rather than by it when given alone. There are many of these combinations that have won popularity by their undeniable efficacy, and, while phenylacetamide is the principal constituent, they all excel that drug when it is given alone. The "ant-nervine" mixture, of phenylacetamide, sodium salicylate, and ammonium bromide, in varying proportions, is one of the best of these for many diverse forms of pain. Within the last year however, it has been largely superseded in my practice by ammonol.

Therapeutically, this may be said to combine the properties of phenylacetamide and ammonia, and the latter appears to hasten the action of the coal-tar product, so that the effect is manifested much more speedily than when given alone. This renders ammonol especially valuable in the severe forms of nervous headache, where the intense pain demands quick relief. Not the least advantage here is that it does away with the need of morphine hypodermics, almost the only means of affording speedy relief previously. As neuralgic attacks are invariably characterized by depression of the vital forces, it will be seen that the use of ammonia enables us to avail ourselves of the powerful aid of phenylacetamide in many cases that without it could not be treated by any coal-tar derivative. One case illustrates this point: A lady in New Mexico was subject to excruciat-

ing attacks of neuralgic headaches; blind-
ing headaches, she called them. Phen-
ylacetamide at first relieved her, but soon
failed; and when the dose was increased
until she became blue, great depression
and fainting ensued, and yet the pains
were not relieved. She was given am-
monol, and this gave complete relief, not
only at first, but now, over a year from
the day she first took it, she still obtains
as much relief from the original dose of
five grains. This case has created a steady
market for ammonol in the New-Mexican
town in which she resides.

The same result has followed in several
cases of dysmenorrhea, both spasmodic
and congestive. In the former, ammonol
is usefully combined with helonias and
ammonium valerianati; in the latter it
needs no assistance. Here, also, there is
no need of increasing the original dose;
in fact, as the habit of looking for relief
from ammonol becomes fixed in the
mind, smaller doses will suffice to give
the needed relief.

There is a third group of painful affec-
tions in which ammonol not only gives
certain relief, but does so more certainly
than any other form of phenylacetamide
compound. This is the headaches de-
pendent on or accompanied by acid or
irritable stomach. It is now recognized
that many headaches are uricemic; that
sickness is not so frequently an evidence
of depression as Austie claimed, but
rather is caused by the presence of toxic
acids, whose absorption into the cir-
culation gives rise to the headache. We
have, then, in ammonol, the remedy that
meets exactly *all* the indications present:
an antacid, to neutralize the uric or acetic
acid present; an antiseptic, to stop fer-
mentation or microbic toxingeneration;
and an analgesic, to relieve the pain. In
rheumatism, and in some forms of in-
testinal fermentation, it seems probable
that the addition of salicylic acid, prob-
ably as ammonium salicylate, would be
desirable, as increasing and prolonging
the antiseptic action of the phenylaceta-
mide.

Altogether, we have in ammonol a
happy combination founded on just ther-
apeutic principles; one from which we
obtain effects superior to those of the
components given separately; and as
such, ammonol deserves a place in every
physician's *vade mecum*.

Cancer of the Gall-Bladder.

Kelynack has investigated the subject
of the association of gall-stones and can-
cer of the gall-bladder, and comes to the
conclusion that, although primary cancer
of the gall-bladder may occur unassociat-
ed with the presence of gall-stones, in the
large majority of cases the two exist to-
gether, and that it is reasonable to sup-
pose in some cases at least that develop-
ment of the malignant growth is favour-
ed by the irritation of the calculi. A
paper by Rolleston upon the rarer disease
of primary carcinoma of the bile ducts
seems to show that in such cases gall-
stones are less common. In eleven cases
gall-stones were only present in four.
Carcinoma in this situation is generally
of the cylindrical-celled variety. It is
interesting pathologically, and Rolleston
seems to think its recognition clinically
may be of some importance, since it
would be more amenable to operative treat-
ment than malignant disease in other
situations causing jaundice. He is
obliged to admit, however, that the di-
agnosis between carcinoma of the com-
mon bile duct, and of the head of the
pancreas, can hardly be made. A case
of primary sarcoma of the liver is re-
corded by Byron Bramwell where a large
blood cyst in its interior simulated a
hepatic abscess and was opened and
drained. The patient died, and the liver
was found enormously enlarged by a
tumour which had destroyed nearly the
whole organ. It weighed 9 lbs 6 ozs.

About eight weeks since I was called
to see a patient of Dr. L's, we found her
with excruciating pains in the hepatic re-
gion, constant vomiting with distress in
stomach, in fact could keep nothing down
for a couple days. Enlarged liver easily
felt below the costal margin, very sen-
sative, so much so that we strongly sus-
pected malignant disease. The symptoms
were discouraging decidedly as the do-
ctor had given her nearly every medicine
used in hepatic diseases, without relief. I
suggested "Peacock's Chionia," it was
given and she began to improve, and at
this date is as well as usual. It certainly
was an efficient remedy in her case, and
the result deserves recording. Battle
Creek, Mich. F. W. BATHRICK, M D.

Remote Effects of Bone Trauma.

On September 23d, 1896, at the Chicago meeting of the American Academy of Railway Surgeons, Dr. D. S. Fairchild, of Clinton, Iowa, read a paper in support of certain propositions in relation to the remote effects of bone injuries. The propositions defended in this paper were based on inflammation or irritation in bone following injuries and the sequela resulting therefrom.

1st: Resolution, including a complete restoration of the bone to its normal condition occurs in the vast majority of cases.

2d. Resulting in rarefying and condensing osteitis which may remain as a more or less permanent condition, if slight in degree giving rise to no well marked subjective or objective signs after the process becomes arrested.

3d. If the process continues for a period beyond a few months, well marked and unmistakable changes in the physical condition and appearances of the bone will appear.

4th. A persistent acute or chronic osteo-myelitis will also give rise to unmistakable physical changes in the bone.

5th. A persistent acute or chronic osteo-periostitis will give rise to thickening of both periosteum and bone of a character that will be readily recognized if the bone is so situated as to admit of easy surface examination.

6th. If the products of inflammation in cases of rarefying osteitis, or in osteo-myelitis becomes infected with pus forming microbes, the suppurative process will become evident. Except in cases in which the process is very limited giving rise to a small abscess in the bone which may be indicated only by subjective symptoms.

7th. The injury and irritation following may establish a joint of least resistance, which may become the seat of tubercular infection with certain definite results.

The length of time after a trauma, during which this influence may exist, can not be definitely determined, but it may be assumed in the light of critical practical experience and pathological research that the special predisposition will cease to exist as soon as the effused blood is absorbed and the protoplasmic elements, the products of irritation, or inflammation, have been resolved into

new bone, or have undergone degeneration and absorption, i. e., as soon as the normal nutritive balance is restored. I do not believe there is any scientific evidence, or any practical facts, that will bear criticism, which will support the assumption that the locus resistetia minosis may continue for months or years after all signs of the injury and its immediate results have disappeared.

8th. There is no evidence to show that a carcinoma, or sarcoma, may develop as the result of an injury after the immature bone elements have become transformed into tissue of a normal resisting physiological type.

A Practical Way to Increase the Membership,

In a paper read before the Pennsylvania State Medical Society, on A Practical Way to Increase the Membership, Dr. S. S. Towler says:

"Any organization seeking enlarged membership from a select class, must be attractive and useful to that class. Its attractive usefulness must be apparent, commanding and publicly known. That the papers of such a society, as ordinarily published in Medical Journals, and in a volume of "Transactions," reflect no particular credit on the Society, and that the "Transactions" are never seen by the larger class of practitioners, and seldom read by the Society's own members. That in that particular the talent of the Society is hid, so far as the Society is concerned. That every thing done by the Society should be made to bring out the organization, before the medical and lay public, in a way to count for the Society. That the organization ought to take the lead in all legislation affecting public health and hygiene. Its methods ought to be on a strict business line, in election of officers, on account of fitness, for the positions, and not complimentary on the score of medical learning. That the latter policy leads to suspicion of clique and jealousy. That the Society ought to have its own journal in which would appear all the papers, discussions, receptions, etc.

In this way the Society becomes prominent, and it is prominence that just attracts the outsider. That the outside

practitioner soon learns that to be part of this prominent organization, he must first be one, with the physicians, in his own locality, etc.

He concludes. "Organization, we have utilization and concentration is within our power."

Symptomatology of Syphilitic Insanity.

The October number of "Medicine" contains an article on the Symptomatology of Syphilitic Insanity by Dr. Arthur E. Mink, of St. Louis.

This paper will doubtless excite considerable interest both at home and abroad, as this subject has been greatly neglected by both English and American physicians.

The author appears to be thoroughly at home in the literature of his theme, which is, as he states, scarce and scattered.

After giving a concise but very able review of the principal writers on this subject, he shows that in spite of many differences, their views coincide in many particulars. Especially do they agree upon the prevalence of syphilophobia, hypochondriasis, and the psychoses of weakness and depression due to syphilis.

The writer then gives the results of his own experience, which seems to have been extensive. He shows that primary or stuporous dementia cases occur before the outbreak of constitutional syphilis and gives examples of such cases from his own experience and that of other authors. He holds that genuine mania is a very rare occurrence in syphilitic insanity, and believes that what usually called such are only unrecognized cases of hallucinatory confusion or confusional insanity. The writer mentions several interesting cases from his experience, which show how one form of insanity may follow another, or be mixed together in syphilitic psychoses. Another characteristic of syphilitic insanity is the peculiar way in which focal symptoms may complicate mental symptoms as well as their protean and shifting character.

He gives a very graphic description of syphilitic dementia, showing how it may affect certain faculties, and how these symptoms may appear and disappear. This is most apparent with certain accomplishments, such as violin, piano playing, etc.

Some writers hold that there can be a *paranoia syphilitica*. The author is strongly opposed to this view, and shows that paranoia is a chronic degenerative insanity, with systematized delusions; while on the other hand, the very nature of a syphilitic insanity prevents systematization of delusions. While admitting the importance of syphilis in the production of parietic dementia, Dr. Mink is yet opposed to the exclusively syphilitic origin of this affection. He holds that particularly in America many other things are potent etiological factors, such as overwork, worry, excesses of various kinds, along with the struggle for wealth and self, etc. He believes that the scarcity of this disease amongst women is another stumbling block in the way of advocates of the exclusive syphilitic origin of parietic dementia.

At the end of this article we find the most complete bibliography of this subject probably ever written.

Urethral and Vesical Arthritis.

Dr. A. H. Levings, of Milwaukee, Wis., in a paper before the Fox River Valley Medical Society, June 21st, discusses these two forms of arthritis.

He calls attention to the fact that urethral arthritis, often called gonorrheal rheumatism, is frequently mistaken for true rheumatism. That the chief characteristics of urethral arthritis are that it occurs during the decline of a gonorrhea, or during the continuance of a gleet discharge. When the inflammatory process in the urethra has caused destruction of its epithelial lining, thereby favoring the absorption of pyogenic or pathogenic germs or their ptomaines. That it usually attacks but one or at most but few joints. The knee, hip, and joints of the hands being most frequently invaded. In contradistinction to rheumatism all the structures of the joint are inflamed, producing a typical infective arthritis. Suppuration however, seldom occurs, but the fibrinous exudate in the joint is extremely liable to become organized and cause more or less ankylosis. Local treatment is instituted only in case of pronounced stricture.

Internally, quinine and salol are given for their antiseptic effect upon the urine,

and sandal oil, or balsam, for their specific action upon the urethral mucous membrane.

For the joint fixation is recommended, with extension of the disease is at the knee or hip, and aspiration or incision if the fluid is excessive in amount or purulent. He warns against the continuance of immobilization beyond the acute stage on account of the liability of ankylosis. For the purpose of hastening the absorption of the exudate, after the acute symptoms have subsided, and favoring the restoration of the joint functions, massage, passive motion, and the repeated production of small blisters are recommended.

Non-gonorrhœal vesical arthritis is illustrated by the history of two cases. It is stated that this form of arthritis occurs most frequently in old men, who, either in consequence of an enlarged prostate, or atony of the muscular fibers of the bladder, have that train of symptoms which are the result of an incompetent bladder, residual urine injection decomposition, cystitis.

The pyogenic micro-organisms, or their ptomaines in the bladder, gain an entrance to the venous or lymphatic circulation, find a lodgment in a joint, or joints, and there set up inflammatory action. In the treatment of vesical arthritis, strychnine and tonics are recommended to restore the functional power of the bladder, and salol and quinine to lessen the decomposition of the urine. Local treatment consists in washing out the bladder daily with carbolic acid solution, $\frac{1}{2}$ to 1 per cent., to which is added one drachm of boracic acid to the quart of water, alternating this with permanganate of potassium, 5 to 10 gr. to the quart of water. It is stated that by this method of treatment the patient will often escape the serious operation of castration or drainage.

The Serum Diagnosis of Typhoid Fever.

Widal describes a method (Edinburgh Medical Journal) of considerable importance in the diagnosis of typhoid fever by means of a simple reaction *in vitro*. Having inoculated separately tubes of bouillon with Eberth's bacillus and the B. colicomunis, a few drops of serum are added to each from an animal render-

ed strongly immune for typhoid. After the first four or five hours the tube containing the coli bacillus becomes slightly cloudy, the other remaining perfectly clear. At the end of twenty-four hours the former is extremely cloudy all though, the culture of Eberth's bacillus being either very slightly so or not at all, the organisms being precipitated to the bottom of the tube as a white flocculent mass. A drop of the coli culture examined under a microscope shows that the bacteria are isolated and characterised by great mobility. A drop of the Eberth culture shows sparse conglomerations of the organisms, which are immobile, thick, and deformed, for the most part being struck together. The author finds that the serum of a thoroughly immune animal is much more active than that of the human subject convalescent from typhoid fever, and the greater the degree of immunity in the animal the greater the activity of the serum in producing this phenomenon, and he has been able to obtain marked results with the serum obtained from an immune ass in the proportion of 1 drop to 10 c.cm. culture. The author also finds that the serum retains this power when dried at the end of six months, it being sufficient to dissolve a fragment in some bouillon. He also carried out some observations with the view of discovering the effect produced by the blood serum from patients at different stages of the disease; for this purpose he examined six cases on the eighth, twelfth, fifteenth, sixteenth, nineteenth, and twenty-first day of the disease, and on each occasion he obtained the conglomerating and immobilising effect with great distinctness. The method is as follows: A small quantity of blood is withdrawn from the bend of the elbow by means of a sterilised syringe; the serum is decanted and a few drops added to an inoculated tube of bouillon in the proportion of 1 to 10 or 15 parts of the latter. This is placed in the incubator, and at the end of twenty-four hours the flocculent precipitate will be found. This can be controlled by an inoculated tube of bouillon without the addition of blood serum, which will show a uniform cloudiness, and the difference between the activity of the organisms in the control tube and the conglomeration and immobility of the other is very marked.

The Differential Diagnosis Between Benign Lymphomyxoma and Malignant Lymphomyelia.

Dr. J. A. Benemann in the New York Medical Journal mentions on the extreme difficulty of diagnosis by microscopical examination between benign and malignant neoplasms of lymph tissue, especially when this is not accompanied by a knowledge of the clinical history of case. He proceeds to describe the two forms quoted in the title, prefaced by the suggestion that "we admit the so-called protoplasm is traversed by a reticulum, the "points of intersection of which, previously termed 'granules,' may grow into "solid lumps of living matter, which in further development become vacuolated, "afterwards reticulated, and, at last, transformed into nucleated protoplasmic "bodies." Also, that we admit the existence of a delicate reticulum in connective tissue tumours, this reticulum being transformed into protoplasm. The small round celled sarcoma of Virchow is termed lymphomyeloma. He takes a "so-called adenoid growth springing from the mucosa covering the tubinate bone" as an example of the lymphomyoma, which is thus described: "The "main mass of the growth consists of lymph tissue, *i. e.*, a protoplasmic reticulum, 'the meshes of which contain an indistinctly granulated basis substance and a "number of so-called lymph corpuscles, formations of living matter, varying in "size from a small homogeneous lump to a granular corpuscle." Stress is also laid on the fact that the reticulum is always traceable and the appearance of the masses referred to are minutely described, and are said always to exhibit "radiating spokes of living matter, which enter into and inosculate with the reticulum of the basis substance." In the lymphomyeloma, on the contrary, no reticulum is seen in the denser parts, and in others it is extremely delicate—the number of somewhat larger coarsely granulated protoplasmic bodies is far greater, and the number of still larger bodies still more marked, approaching a gliosarcoma in appearance. The more frequent these "lumps" in the reticulum the more rapid the growth and malignancy of the growth; and the fact that the fibrous

capsule is unchanged is in favour of the tumour being benign. This is of especial value in tonsillar growths. Finally epithelium is attacked by malignant tumours, and not by benign.

Diagnosis and Treatment of Laryngeal Tuberculosis.

Dr. Mossi contributed a paper to the Second Congress of the Italian Laryngological Association with this title in regard to the diagnosis, the author points to the difficulty of a positive bacteriological answer, and relates cases in which the microscopical examination demonstrated the true nature of the disease, from which he concludes a great want of recognition, as there are cases which clinically resemble chondritis, and are of primary tuberculosis of the larynx. It is, then, highly probable that primary laryngeal tuberculosis is more frequent than generally believed.

From the other side he relates cases in which few tubercular bacilli were found, and the course, the issue, and the symptoms were such as to exclude the tubercular nature of the disease. He recollects Knight's and Sharp's opinions on the subject, and mentions some studies he began since 1892 on the argument of the presence of tubercular bacilli in healthy subjects, and which remained sterile. He then insists upon the necessity of an accord among bacteriological researches, the organic impairment, and clinical form for a right diagnosis.

Treatment.—Cases of complete recovery are reported with simple tracheotomy, curettment, or simple application of the phenol sulpho-ricinate proposed by Ruault, of Paris. Causes have modified the first opinion of the author in regard to laryngeal phthisis. He relates the late opinion of Herying, but as regards promises and indications, the author is of opinion that we do not know the circumstances which allow us to assist to a cure. He does not deny the possibility of a complete recovery; he cannot give exact indications for foreseeing the issue of this terrible disease.

But in general a narrowing of the larynx without serious lung impairment and general good health, let us hope much in tracheotomy, as the polypoid

form and the chondritis seem to be the most accessible to a local treatment.

An early interference, besides, also assist in a probable success; hence the necessity of an early diagnosis and the interest of the few remarks above made, and the necessity of help to the diagnosis, not only with bacteriological researches, but even with microscopic examination of small pieces removed, and inoculation in animals, if necessary.

Treatment of Summer Diarrhœa.

Solis-Cohen in a very interesting article in the Medical News with the above title says that whatever the character of the food that is being given to an infant or child presenting symptoms of gastrointestinal disturbance (save only in the case of infants suckled by healthy mothers or wet nurses) it should be changed immediately. The sickness of the child is a sufficient proof of its unfitness. The alimentary canal should at once be cleansed of irritating and toxic matters. If this can be accomplished by the administering of a mild laxative, calomel in small doses, or castor oil and aromatic syrup of rhubarb without lavage, it is better to avoid the passage of a stomach tube. If, however, vomiting is marked, action urgent and medication ineffective, the stomach should be washed with warm water (100° F.), and sodium borate or bicarbonate, 1 drachm to the pint. To cleanse the bowel a high enema of warmed normal salt solution is usually the best method. After the bowel has been cleansed, the author has found nothing better to soothe and disinfect the alimentary canal than a powder consisting of benzo naphthol (benzobeta-naphthol) and bismuth salicylate, usually in equal parts, with or without the addition of Dover's powder. The dose is regulated rather by the size of the powder—that is, the child's ability to swallow it, than by the quantity of active drug, except as regards the opium, which varies with the age of the child and the severity of the case. A child of 6 months can usually swallow 3 gr. of the powder, say 1½ gr. each of benzo-naphthol and bismuth salicylate, and some can take much more. When a sufficient quantity to produce the desired effect cannot otherwise be given,

a dose of even 5 gr. of each constituent may be divided into manageable portions (perhaps a little sugar of milk added though this is rarely necessary), and given at intervals of ten minutes, more or less. The dose for an adult is about 5 gr. each of bismuth, salicylate, benzo-naphthol, and Dover's powder. It is the combination, not any one constituent, that is effective. The intervals between doses vary from two to four hours at first, and are prolonged afterward in accordance with the improvement in symptoms. Since resorting to this treatment the author has not had to use chalk mixture, or soda and rhubarb, or other mixtures of that kind. It is important, however, to stop milk feeding during the active treatment: Barley water in a small quantities is the best diet for two or three days. After that freshly prepared meat juice, an unobjectionable proprietary food. Pasteurised milk, or even boiled milk may be used, under proper precautions as to cleanliness, physical and chemical. In case of severity approaching collapse hot bathing, external application of heat, and the use of strychnine in appropriate doses, may be additionally necessary.

The Treatment of Chronic Eczema.

Chronic eczema in its various forms is a most annoying affection and in many instances extremely rebellious to treatment. This is well exemplified by the numerous remedies that are recommended from time to time. To obtain any permanent results it is not sufficient to rely upon external applications but attention must likewise be paid to the diet and hygiene of the patient. A plain nutritious diet should be prescribed with abstinence from indigestible or stimulating foods and beverages. The excessive use of tea and coffee and alcoholic drinks is often responsible in preventing the cure of these cases. As regards the local management of chronic eczema, a remedy should be chosen which will relieve distressing itching, remove the scales and crusts and by stimulating the circulation cause the absorption of existing infiltration in the corium or even in the deeper tissues. The remedy to be selected will depend upon the exact condition of the affected parts, but it would seem that we have in

Aristol a drug which is generally useful in this affection. Dr. J. A. Cantrell, the American Therapist speaks as follows regarding its use.

"The experience with the use of aristol resulted in better effects from the treatment of eczema in my work than it was even supposed it would. While Weisblum received favorable results in the seborrheic type, my experience will corroborate it as well as in the chronic variety in which Kraus and von Swiecicki report beneficial effects. I have found that this agent was only of benefit in those varieties wherein there was much infiltration and thickening and consequently the more chronic conditions. I have also found that in the squamous conditions the drug acted as a stimulant and soon gave that desired removal of scales with lessened amount of itching which is so constant a symptom. In the vesicular and pustular varieties this drug gave very excellent results after the removal of the decided inflammation which is a usual accompaniment.

Oysters and Infection.

Robert Boyce and Herdman read a paper at the recent meeting of the British Medical Association afterwards published in the British Medical Journal which was in the nature of report upon the possible infectivity of the oyster and upon the green disease in oysters. The authors said:—At the last meeting of the British Association, Ipswich, 1895, we brought forward some results based upon the artificial feeding and cultivation of oysters in sewage-contaminated sea water. We concluded that the laying down of oysters in localities where there was a good change of water, by tidal current or otherwise, was beneficial to the health of the oyster, and we surmised that by methods similar to those employed in the *bassins de degorgement* of the French ostricultrist, where the oysters are carefully subjected to a natural process of cleaning, oysters previously contaminated with sewage could be freed of pathogenic organisms or their products without spoiling the oyster. The present report, which is still incomplete, deals almost exclusively with the bacteriology of the oyster and the behaviour of bacillus typhosus in sea water and in the oyster.

The questions investigated are the following:—The identification and differentiation of the bacillus typhosus and bacillus coli commune, the action of sea water upon the growth of the bacillus typhosus, the bacteria present in the alimentary canal of the oyster, and the infection of the oyster with the bacillus and its removal by washing. We have systematically tested the majority of the chief differential reactions upon the samples of bacillus typhosus and coli obtained from numerous sources, and have in all cases found unmistakable differences between the two bacilli. The results obtained by experiments were fairly uniform. When a large number of bacilli are added to the water their presence may be demonstrated longer than in cases where smaller quantities are used. Fourteen days would appear to be the average duration in sea water incubated at 35° Centigrade; whilst kept in the cold their presence was demonstrated on the twenty-first day. There appears to be no initial or subsequent multiplication of bacilli. Between forty and seventy hours after infection there is less decrease than at other periods; but there is no evidence of increase in numbers of the bacilli when grown in sea water either when incubated or at ordinary temperatures. We do not think, however, that these experiments can be taken without reserve as an indication of what might take place in Nature. With regard to the bacteria present in the alimentary canal of the oyster, this research has proved of very considerable utility in guarding us against errors in our subsequent infection experiments, and are of further interest in demonstrating the large number of cases in which the colon bacillus was normally present. In analysing the contents of the stomach we have in all cases cauterised the mantle over the region of the stomach. The number of organisms taken from the stomach of the oyster which could survive a temperature of 37° Centigrade were comparatively small. In a very large proportion of cases ($\frac{1}{3}$ to $\frac{1}{2}$) the organism present was bacillus coli in overwhelming numbers, and next in frequency were species of proteus. In one instance, at least, the organism approached in its reactions the typhoid type. We believe that on account of the presence of this coli group the identification of the bacillus

typhosus would be difficult in Nature. We cannot at present state whether the coli group found in these experiments indicates sewage contamination, or whether we are dealing with a group common in the intestine of the oyster and in salt water. The matter is being investigated by us. The typhod bacillus does not increase in the body or in tissues of the oyster. The figures would rather indicate, comparing the large number of bacilli present in the water with those found in the alimentary tract, that the bacilli perish in the intestine. Infected oysters were taken and subjected to a running stream of pure clean sea water. The result is clear and uniform—there is great diminution or total disappearance of the bacillus typhosus in from one to seven days.

Comparative Toxicity of the Digitalin Group.

Mr. Piotrowska in one of our exchanges reports the results of a study of the comparative toxicity of the substances of the digitalin group according as they are administered hypodermically, intravenously, or by the gastro-intestinal canal. The substances experimented with were different digitalins (Homolle and Quevenne, Nativelle), fluid extract of convallaria, convallamarin, strophanthin, coronillin, and helleborein. The experiments were made on frogs and on certain mammals (rabbits, cats). The following are the author's conclusions: Fluid extract of convallaria is seven times less toxic in frogs when given by the gastro-intestinal canal than when administered hypodermically. Convallamarin in the frog and the rabbit is six times less toxic by the gastro-intestinal canal. Digitalin (Homolle and Quevenne) in the frog is three times, and digitalin (Nativelle) one and a half times, less toxic by the gastro-intestinal canal. Strophanthin is six times, coronillin thirteen times less toxic by the gastro-intestinal canal. Helleborein in the frog is seventeen times, in the rabbit twenty-six times less toxic by the gastro-intestinal canal. In order to determine whether the liver plays a part in attenuating the toxicity of the poison introduced into the gastro-intestinal

canal, the author investigated in the frog the modifications which extirpation of the liver produces, and in the rabbit the difference in toxicity of the substance introduced into a peripheral vein (jugular, femoral, auricular), and into a vein of the portal system (mesenteric). The results of the experiments in mammals did not always agree with those on frogs. Frogs from which the liver has been extirpated are six times more sensitive to extract of convallaria, twice more sensitive to coronillin, and eight times more sensitive to helleborein than in the normal state. Frogs in the fasting state are more sensitive to the action of the fluid extract of convallaria, coronillin, and helleborein. In the rabbit the liver does not appear to lessen the toxicity of convallamarin or helleborein. Coronillin, on the contrary, is three times less toxic when injected into a mesenteric vein; its toxicity, therefore, seems to be attenuated by the liver.

Dr. R. Sayre Harden, of Waverly, New York (The Journal of the American Medical Association, August 1st, 1896) has been for the last twenty-five years a believer in the treatment of typhoid fever by intestinal antiseptics, and the endeavor to prevent the fermentative, putrefactive, and septic conditions that result therefrom. During the past twelve years he has treated seventy-two cases without any fatality. During the past year he has used the Carbonate of Guaiacol in twenty cases with the most excellent results. In nine of these cases the disease was checked on the fourteenth to the seventeenth day after the initial chill. In many of these cases the symptoms for a few days were severe, indicating a grave type of the disease, but almost invariably a lower plane of fever, and a marked amelioration of all the symptoms was established, the tongue and skin becoming moist, delirium diminishing or disappearing, tympany vanishing, and the patient sleeping and resting better.

Dr. Harnden employed the Carbonate of Guaiacol in $\frac{1}{8}$ grain tablets every hour through the day, the three or four times during the night, if the patient was often awake, for several days. The drug was continued every two hours during the day while the fever lasted. He observed the usual proportion of hemorrhages and

relapses, and he does not believe that the antiseptic treatment prevents either. But he thinks that the relapses are not due to reinfection, but rather that the typhoid element is held in abeyance in some of the glands or adjacent lymphatics, manifesting itself after the subsidence of the first attack in a similar manner as do zymotic diseases that are held in abeyance during the latter period of pregnancy.

Diphtheria.

At the June meeting of the Gibson County Medical Society, Dr. A. B. Clay read a paper on Diphtheria. After some discussion, owing to its merits, the committee had it published in the Memphis Medical Monthly.

The author stated that the disease was highly infectious, frequently assuming a severe epidemic form, characterized by local fibrous exudate, usually, though not always, upon a mucous membrane and manifesting decidedly constitutional symptoms.

The greater the discharge the greater the liability of its being propagated. Infection lasts for an uncertain time after convalescence.

There may be redness in any part of the throat with swelling and increased secretion of viscid mucus. Patches of exudation may locate on any part, such as the tonsils, palate, uvula, and may start from one or many points, extend and coalesce so as to form extensive patches, or cover the entire surface. In color the lymph is gray, white, or slightly yellow, or it may be dark or dirty looking, and may form in the faucial cavity from twelve to forty-eight hours after inflammation supervenes. This condition may extend to the larynx, trachea, eustachian tube, middle ear, or bronchi, rarely to the stomach, œsophagus, intestines, gall-bladder, vagina, and rectum. The voice is husky, and the patient speaks or cries in a whisper. The complexion is dirty looking and opaque. There is an ordinary febrile attack, the temperature rises to 102° to 104° .

Prognosis, always grave, is worse in children than adults. The chief signs of danger are: Repeated vomiting, or diarrhæ, epistaxis, great discharge from nares, implication of larynx, dyspnœa, a very

rapid, feeble, or infrequent pulse, delirium, adynemia, asthenia, prostration, cyanosis, or the various sequelæ. The parts may become gangrenous; abscesses in any of the glands.

In regard to *treatment* the writer emphasises the importance of thorough disinfection of throat and nasal passages. Dyspnœa may be relieved by emetics, stimulants, chloroform, ether, hot poultices, or ice bags to throat, intubation or tracheotomy; mild purges at the beginning. Local treatment is very necessary. Astringent application, namely: nitrate silver, tinct. iron, dilute hydrochloric acid, carbol. acid, dil. papoid, spraying throat and nasal passages.

Internally, *stimulation* and a *supportive treatment* are *very necessary*. Brandy, ammonia, quinine, tinct. perch. iron, strychnine, electricity, a nutritious diet.

Hæmatogenous Jaundice.

Auld does not think that the idea of hæmatogenous jaundice can be altogether put on the side. He confirms the observations of Hunter, which tend to show that tolylendiamin causes obstructive jaundice by producing viscosity of the bile and catarrh of the bile ducts; but he considers that the jaundice which follows poisoning by phenylhydrazin and metaphenylendiamin may have a different origin. These substances lead to great blood destruction, which apparently takes place chiefly in the spleen, where great formation of pigment occurs. A great deal of this pigment finds its way to the liver, where the products of blood destruction become eliminated. When the amount of poison given has been large the action of the liver cells becomes impaired, and some of the pigment finds its way into the general circulation. The pigments derived from broken-down blood cells, however, are not bile pigment, but Auld thinks that it is possible to conceive that the liver cells may be able to transform the free hæmoglobin into bile pigment, and yet not prevent its entrance into the general circulation. Plowright refers to an epidemic of jaundice which occurred in King's Lynn in 1895. Thirty-four cases occurred in seven months. The majority occurred under the age of 30. In twenty-one cases

there was more or less epigastric pain, and in twenty-four vomiting ushered in the jaundice. The majority were well at the end of ten days. No fatal case occurred.

Urticaria of the Respiratory Passages.

Delbrel (Edinburgh Medical Journal) has collected a large number of cases and records of this condition, and from these he draws the following conclusions:

There are two types of urticaria affecting the respiratory passages: (1) In certain cases the cutaneous eruption appears first, and is followed by respiratory trouble; (2) in others the respiratory symptoms first appear, to be followed later by the eruption, and it is in this latter that the greatest difficulties of diagnosis and the greatest danger to the patient may arise. In many instances the urticarial affection so closely resembles other respiratory disorders that in the absence of any cutaneous condition diagnosis may be almost impossible, and it may even happen that the only manifestation of the disease is that affecting the respiratory mucous membranes. Some cases simply resemble an attack of asthma; others manifest themselves by suffocative attacks with irritating hacking cough, closely simulating oedema of the glottis, for which they may be mistaken. In such cases a laryngoscopic examination may be of great use, though, unfortunately, it may fail even in skilled hands, as it seems to cause increase in the symptoms. In the instances where it has been carried out, red raised erythematous patches have been found in the posterior pharynx, and though it may be impossible to obtain a view of the eruption in the larynx or trachea, the existence of such patches in their neighbourhood may be of use. In the cases where the respiratory affection is severe the symptoms may be most alarming. There is no regularity as to the time of their appearance after the ingestion of some article of diet, etc. The author states that severe cases not infrequently end fatally; others may last for periods varying from a few hours to several days, and the appearance of cutaneous urticaria seems to be a favourable sign. He suggests that, in acute cases with severe pulmonary symptoms

and no cutaneous eruption, brisk friction should be applied to the skin in order to induce its appearance.

The Discovery of Ether.

Friday, October 16th, was the 50th anniversary of the discovery of ether, and Dr. W. J. Aldrich, of St. Johnsbury, Vt., presented at the Vermont Medical Society a timely article on this subject.

He said that to prevent pain in surgical operations was an object so desirable that ever since the days of Homer efforts have been made to attain it. Nepenthe, Mandragora, Mandrake and Hemp have all been used. In 1800 Sir Humphrey Davy discovered the anæsthetic properties of nitrous oxide gas, but it was not used in surgery until 1844, when Dr. Horace Wells, a Hartford dentist, tested it upon his own person.

The first record of the inhalation of ether was by Dr. Pearson, of England, who used it for asthma and other lung affections.

Faraday, in 1818, discovered that ether possessed anæsthetic properties similar to those of nitrous oxide gas. While Nature was trying her best to tell her secret, no one interpreted it until Dr. William T. G. Morton, a dentist of Boston, demonstrated its utility in the Massachusetts General Hospital, October 16th, 1846. A tumor was removed from a man's neck by Dr. Warren in the presence of many eminent surgeons, and during the operation no sign or consciousness or pain was shown by the patient. Then Dr. Warren, in his impressive manner said: "Gentlemen, this is no humbug."

Dr. Morton's discovery at once made him a prominent figure, but then sprang up around him those who claimed priority of discovery, and a jealous people sought to detract from his achievement, and with such success that his own country never made any recognition of his services. This was a great sorrow in Dr. Morton's declining years, a sorrow rendered all the more keen by the fact that other governments hastened to bestow upon him orders and decorations.

Dr. Morton died while yet a young man (48), and was buried in Mt. Auburn cemetery near Boston, in the presence

of many eminent physicians. Over his grave stands a monument, erected by the citizens of Boston, bearing these words: Dr. William T. G. Morton, inventor and revealer of anæsthetic inhalation. By whom pain in surgery was obviated and annulled. Before whom in all time surgery was agony. Since whom science has control of pain.

Croupous Pneumonia.

Muller mentions in the Hospital Gazette a case in which a bacillus producing sulphuretted hydrogen was the cause of the disease. The patient, aged 54, had suffered for four weeks before admission from headache and frequent shivering. Two days previously he had severe shivering pain in the left chest, and violent headache. On admission there was labial herpes, signs of consolidation at the left base and characteristic sputum. Some improvement occurred. Seven days after admission a fresh crop of herpes appeared, and then a second pseudo-crisis took place. Consolidation appeared in the right upper lobe. About 12 days after admission the urine had the odour of sulphuretted hydrogen; lead paper held over it was blackened. Casts were present, and also groups of bacilli. These bacilli were not possessed of a capsule. In the sputum there was no smell, but the same bacillus was found. Cultures from the blood, drawn immediately after death, showed the presence in pure culture of the bacillus mentioned above. When a few drops of copper solution were added to the gelatine a brown colour was developed, due to copper sulphide. No differences could be made out by culture in the bacilli obtained from the blood, urine or sputum. The lungs showed consolidation in various stages. The prodromal stage of this pneumonia was exceptionally long. The SH_2 -producing bacillus was undoubtedly the cause of the disease. The author has not been able to discover a recorded case of hydrothionuria in pneumonia. The entrance of the bacillus into the blood, and its elimination by the kidneys are important; this elimination can be effected without obvious damage to these organs. In the complications of pneumonia, such as meningitis, otitis media, etc., the micro-organisms gain access into the blood, and

settle down in other parts. Perhaps this penetration into the blood is not so uncommon. Further investigations are needed to show whether this occurs in the ordinary favourable cases of pneumonia or only in the severe ones.

Exercise after Meals.

It is not everyone who can go to his work with impunity directly after partaking of his meals. A healthy man may go to his work immediately or soon after eating without special injury to himself, whereas a weakly one will generally find it to his advantage to wait a little and allow the process of digestion to get well under way, or if he cannot do this, to work moderately hard rather than very hard. An ordinary labourer, with only an hour's interval for his mid-day meal, must recommence his work at a time when gastric digestion is hardly more than under way, and must continue his work during the progress of the more important intestinal digestion. Yet in spite of the more or less vigorous bodily exertion accompanying his daily labour, assimilation of the required food is probably more complete than is the case of people of sedentary habits. The reason for this no doubt, is, that physical exercise promotes the flow of blood through the digestive organs, and furnishes abundant material for the secretion of the gastric juice. The brain, too, which uses up much blood when in action, is not so active when we work with the muscles, and the blood which goes to it goes to the digestive organs, and invigorates them. The secret of good digestion is plenty of blood in the digestive organs, and moderately agreeable labor, which, as we pointed out above, promotes this.

The Beneficial Effects of Cycling as an Orthopædic Agent.

Dr. J. B. James (British Medical Journal) says:

We live in a cycling age, to such an extent that the public mind is getting almost nauseated with the arguments *pro* and *con*. This universally popular exercise which a vast section of the press obtrudes so unceasingly on our notice that, like

the Athenians of old weary with the everlasting praises of Aristides the Just, many of us would fain be entertained at times with—anything else! But to the thoughtful mind everything offers a serious aspect and accordingly I venture to submit a practical illustration of the beneficial effects of cycling.

For seven years a patient of mine has suffered with that essentially painful and disabling distortion, the over-riding of the right great toe by its minor neighbouring toe, which had to be kept in its normal position by the aid of constant strapping. Such overcrowding is by no means an uncommon source of distress, but its reduction in a very brief space of time is a rarity indeed. In a happy moment for herself my patient was led by the example of other young lady friends to take lessons in cycling, not in the least expecting so speedy and happy a result. After taking five lessons only, she is now happily exempt from the necessity of any mechanical measures for keeping the overcrowding toe in its normal position, to which it has spontaneously returned.

Treatment of Insanity.

A paper read before the Vermont Medical Society, October 16th, by Dr. W. S. Nay, of Underhill, Vt., gives a resume of his experience in the treatment of Insanity. The general practitioner stands aloof, and is indifferent to the needs of many who are within the circle of his acquaintance and practice, and too often sneers at special efforts towards curing this baneful disease. Much study is given to matters of lesser importance.

The asylum with its salutary influences and environment is a lesser factor towards recovery. It is only possible to patients with ample means.

Moral means, through the influence of church and clergy, while not to be condemned, are literal failures. The drunkard naturally turns to his physician, if safe treatment can be given, and a favorable diagnosis assured. No one is better qualified than he to administer relief, coupled with consolation. We can assure patients that they will surely recover. We are not to be limited in manner or

method if by any means we can accomplish desired results.

Physicians are too apt to be orthodox in treatment, fearing criticism if we vary from usual ruts. In treatment of inebriety we must take advantage of similar methods which we find necessary to employ in the treatment of other diseases. The mental or moral effect should be recognized, and should be made a part of the *modus operandi*, and adapted to individual cases.

Have allowed patients absolute freedom in the beginning of treatment to satisfy their appetites if possible. Have used large doses of nitrate of strychnine, combined with other vegetable and mineral tonics, by the mouth, and also nitrate of strychnine hypodermically. Hypodermics were used solely for mental effect, and as preliminary to a crisis which patient is led to expect will come, and does come when you desire it, by the timely substitution of $\frac{1}{16}$ grains of apomorphia. Large doses of strychnia nitrate were bourn from $\frac{1}{4}$ to $\frac{1}{2}$ grain daily without exhibiting toxic effects. Absolutely no desire for liquor after first week. Majority of patients after two years are still abstainers, and signify lack of desire for alcoholics. Others lacking necessary stamina have been tempted and fallen, but in all instances have claimed that it was not because of craving, but due entirely to social influences.

Forms of Diabetes.

Dr. George Harley gives the following classification of diabetes:

1. Hepatic diabetes—including the gouty variety.
2. Cerebral diabetes—including all cases of saccharine urine arising from nerve derangements.
3. Pancreatic diabetes—the most deadly form of the disease.
4. Hereditary diabetes—a form by no means uncommon, and one, too, where both brothers and sisters may labor under the disease without either their maternal or paternal parent having been affected by diabetes, though more distant members of the family may have suffered from it.
5. Food diabetes—including all forms of saccharine urine arising from the ingestion of unwholesome substances.

In the matter of treatment, besides diet

and opium or codeine, Dr. Harley recommends croton chloral, strychnine, phosphoric acid for thirst, and an absolute prohibition of alcohol.

Cardiac Sensations.

Becher (British Medical Journal) remarks that sensations differing much among themselves arise in cardiac affections. Sometimes they manifest themselves in angina pectoris, at other times they are known as stenocardia and cardiasthenia. Cardiac sensations occur in valvular lesions, in diseases of the myocardium, occasionally in nervous affections, and more frequently in Graves's disease. Nothnagel investigated the sensations of valvular lesions. During three years the author made researches into this subject in Litten's policlinic. These observations are attended with difficulties. In the normal heart the regular and normally forcible contractions do not produce sensations. Only after exercise or excitement are they perceived by the individual. The author's observations show that the simple cardiac sensations may be the result of (1) omission of the cardiac beat, and (2) increased force of the cardiac action, due to hypertrophy of the left ventricle, as for instance in aortic incompetence. In the former case the change in or absence of the stimulus produced by the omission of the cardiac beat is perceived. The perception of the immoderate cardiac action in cardiac hypertrophy finds an analogue in the perception of the increased cardiac action as the result of exercise. In the case of the intermitting heart the time between the dropping of the heat and the sensation can be ascertained by means of the kymographion. These cardiac sensations are to be classed among the sensations derived from organs, and the knowledge of these sensations are still deficient.

Syphilis as it Affects the Larynx.

Dr. McNeill in the July 15th Clinical Journal says that usual division of syphilis of the larynx into secondary and tertiary is unsatisfactory. It is better to divide into three stages: (a) earliest manifestations, viz., catarrhal congestions and

mucous patches; (b) an intermediate period, the signs of which are diffuse redness, thickening, and ragged ulceration, especially of the vocal cords—"relapsing ulcerative laryngitis"; (c) later manifestations—(1) acute gummatous inflammation, (2) relapsing laryngitis of the tertiary period, (3) chronic fibroid.

The congestion of early laryngeal syphilis may be diffuse or distinctly patchy. The latter, though very suspicious, is not absolutely characteristic. Mucous patches are not so rare in the larynx as some observers have thought. They vary in appearance according to their situation, but in their primary state they are all more or less papular. This serves to distinguish them from the erosions of ordinary catarrh. The intermediate stage may be the immediate outcome of the catarrhs and mucous patches of the early period, or it may show itself three or four years after the primary sore, or even later. The ulcers of this period are small and irregular in outline, with ragged thickened edges, often multiple, and the cords on which they are situated look as if pieces had been torn out. The ulcers are, however, comparatively superficial, and not usually accompanied by the perichondritis and necrosis of cartilage of the tertiary period.

Chronic Hydrocephalus Following Gastro-Enteritis in Infants.

Marfan has seen three cases in a hospital at one time of children with chronic intracranial affections, the first symptoms of which supervened in the course of an acute gastro-enteritis. The gastro-enteritis was in each case caused by replacing breast milk by unboiled cow's milk or artificial foods. Two of the children suffered from a very marked degree of hydrocephalus, with convulsions, spasmodic rigidity of limbs, exaggerated knee-jerks, and total blindness. The other was a case of cerebral sclerosis with idiocy. All other etiological factors were apparently excluded, the gastrointestinal disturbance being in each case the starting point of the affection. It is well known that infection plays an important part in the gastro-enteritis of suckling infants, and that convulsions and meningitic phenomena may occur in its

more chronic form strabismus, opisthotones, and drowsiness occur. As regards the lesions present, in acute cases hyperæmia of the meninges and cerebral cortex are common, while in the terminal stages of the more chronic forms, meningeal hæmorrhages or thrombi of the dural sinuses occur. It is probable that the hyperæmia of the meninges and brain observed, especially in infectious diseases, results from the action of microbes or microbial poisons. There is reason to think that steatosis of the brain has a toxi-infective origin. Thrombi are probably due to infective phlebitis, and pure meningeal hæmorrhages to hæmorrhagic dyscrasia determined by infection, intoxication, or by steatosis of the liver consecutive to gastro-enteritis. If these lesions do not result in death they doubtless determine such conditions as sclerosis with cerebral atrophy, porencephaly, intraventricular hydrocephalus, or, like meningeal hæmorrhage, extraventricular hydrocephalus. This theory explains the development of a class of such conditions. It is a fact that chronic affections of the meninges and encephalon may be the result of acute gastro-enteritis in infants, and it is possible that they are engendered by some toxi-infective processes of gastro-intestinal origin. Recent evidence points to an infective origin of infantile spinal paralysis, and the *role* played by syphilis in the etiology of general paralysis and locomotor ataxy is well known. Marie has pointed out the production of chronic encephalitis in infants by infectious fevers, and has tried to prove the influence of infection in the etiology of epilepsy.

Diphtheritic Hemiplegia.

In the American Journal of Medical Science, Oct. issue, Dr. Thomas describes two cases of hemiplegia occurring during convalescence from diphtheria. Of course, such a condition is to be distinguished from the ordinary form of paralysis occurring after diphtheria. It is different in its causation and is the result of a cerebral lesion which has no direct connexion with the diphtheria, but is probably the result of conditions which are associated with diphtheria, as they may be with any other acute disease. So that

such cases would be more properly designated as cases of hemiplegia occurring in the course of, or during convalescence from, diphtheria. The condition is not common, but the writer has been able to collect as many as twenty-nine cases scattered throughout medical literature. Of his own two cases the first was that of a girl who at the age of twelve years had an attack of diphtheria. During her convalescence she had an attack of loss of consciousness, on recovering from which she was found to have loss power in the right arm and leg and to suffer from motor aphasia. There was no affection of the kidneys. Eight years later she presented the ordinary post-hemiplegic rigidity of the muscles of the affected side. The second case was similar, only that the patient, also a girl about twelve years of age, suffered from paralysis of the palate and apparently of accommodation after the attack, and it was later than this when she awoke in the night with pain and loss of power in the left extremities. The face also was drawn and she was unable to speak. Speech returned in a few months, but there remained rigidity and wasting of the limbs of the affected side, with exaggeration of the deep reflexes. It is not an easy question to decide what is the lesion in such cases. There is not usually evidence of any valvular heart disease such as would produce embolism, and it seems most likely that such conditions are the result either of embolism due to clotting in the left auricle or of thrombosis resulting from a morbid blood state and a weakened circulation.

Surgical Treatment of Retrodeviations of the Uterus.

Dr. Pozzi's conclusions were as follows:

All surgical treatment whose object is to fix the uterus by attachment to a limited area of its surface can have only temporary results. Constant traction upon the point of artificial attachment will in time produce again the displacement. This explains why Alexander's operation, and vagina- and vesico-fixation, give the uterus only temporary stability, and, besides, many of these operations ought to be rejected because they are a real source of danger in future child-bearing.

The rational treatment of excessive mobility of the uterus (movable retro-deviation) may be expressed as follows, according to individual conditions: (a) Cure the metritis which so often exists by urettag, amputation of the cervix, etc. (b) Restore the perineum, if torn, by a suitable lactic operation. (c) Fit the patient with a pessary which, by distending the posterior cul-de-sac, holds the cervix in position; and regulate the intra-abdominal pressure by an abdominal belt. In fixed retrodeviation of the uterus the principal lesions is not the displacement, nor the adhesions, but the diseased condition of the uterus, tubes, and ovaries; and treatment is to be chosen accordingly.

In many cases the trouble in the adnexa is secondary to that of the uterus, and passes away if the latter is properly treated; in others, the lesions in the adnexa are primary, and the metritis secondary. In such cases laparotomy is indicated, and if the trouble is of a mild character, such as cystic disease of the ovary without occlusion of the tubes, ignipuncture or partial resection of the ovary is to be performed. After adhesions are destroyed the uterus will right itself, but for safety it may be stitched to the abdominal wall. If the tubes are obliterated, and the ovaries more or less diseased, castration is the suitable operation; and by this means the symptoms, often falsely attributed to the uterine displacement, will be cured.

Vaginal hysterectomy is preferable in the presence of old bilateral lesions of the adnexa, with chronic metritis and hypertrophy of the uterus.

Abdominal Section for Tubercular Disease.

Dr. McArdle (American Association of Obstetricians and Gynecologists, September 24th,) formulated in a terse manner what had already been done by surgical means for the relief of women suffering from tuberculosis of the generative organs. There is no doubt that tubercular disease of the female genitalia is more frequent than is generally supposed. Every portion of the genital tract may be affected, the order of frequency or the various portions being the tubes, body of the uterus, ovaries, vagina, cervix

and vulva. The tubes are affected in all cases, the body of the uterus in about three-fourths of the cases and the ovaries in about one-half of all cases. Tuberculosis of the body of the uterus is not at all a rare affection and has been frequently discovered in autopsies upon phthisical subjects. It can be the only focus of disease of the body, but it is generally associated with disease of the tubes and is generally secondary to disease of that organ. Of all the female genitalia, the vulva is the least liable to tubercular infection. The author then dwelt upon the etiology of tuberculosis of the female genitalia, after which he detailed the various ways by which the disease might be caused or transmitted.

The treatment of tuberculosis of the vulva, vagina and cervix did not come within the scope of the paper. The destruction of the tuberculous focus by fluid or solid caustics had been advocated by some surgeons, and if these means were not satisfactory, extirpation of the part was recommended. We had a very efficient means for the removal of the tubercular ulcers of the vagina and vulva in the application of the tincture of iodine. They rapidly disappear under its use. In case of failure, however, excision could be practiced. When the cervix is involved, and not the body of the uterus, the method of treatment advised for the vulva and vagina should be given a fair trial, but if they prove ineffectual no time should be lost in amputating the cervix. When the endometrium is involved there is a diversity of opinion as to the best method of procedure. It has been recommended to first curette the organ and remove all evidence of the disease. The iodoform suppositories are introduced into the uterus. If there should be a recurrence of the trouble, removal of the organ is advised. If we bear in mind that tuberculosis of the body of the uterus is so frequently associated with the same disease in the tubes and ovaries, it seems to Dr. McArdle that having once ascertained the existence of tubercular disease in the uterus, it is our duty to look for a similar condition in the tubes and ovaries, and, if found, it behooves us to waste no time in curetting the uterus and treating it with iodoform, but to proceed at once to the performance of an abdominal section for the removal of the uterus, tubes

and ovaries. This heroic method of treatment is advocated in primary disease of these organs. In a case complicated with tubercular peritonitis there would be no special danger in removing the tubos and ovaries. We all know how many cases of that disease have been cured by section and drainage. We could then curette and treat the body of the uterus.

The Employment of Calcium Carbide in Cancer of the Uterus.

According to Livet in the majority of cases the treatment of cancer of the uterus should be limited to palliation and the diminution of the intensity of the symptoms, as it is very frequently too late to attempt a radical cure; in fact, a radical cure can not be effected unless the disease is limited, that is to say, unless it is amenable to a partial operation according to one of the many procedures advocated. In the purely symptomatic treatment many remedies have been successively employed, but with fruitless results. Total hysterectomy has been advocated, but, although this operation radically suppresses the hæmorrhagic centre, relapses are the rule, and the pain is more violent after the operation than before. Partial success has been obtained by Pozzi's method, which consists in curetting following by cauterization with the red-hot iron.

There are many methods of treatment for combating the fœtid odor in these cases, but they are useless; the medicaments for combating pain are efficacious in the beginning, but their action rapidly decreases and finally almost entirely ceases. In view of the insufficiency of therapeutic measures, says the author, M. Guinard conceived the idea of applying, in the treatment of uterine cancer, the coagulant action that acetylene gas exercises on the blood. He obtained the gas in its nascent state by putting calcium carbide into water. In accordance with Guinard's idea, Livet proposes using calcium carbide, not only in the treatment of uterine cancer, but also in that of other affections accompanied by rebellious hæmorrhages, pain, and fœtid odors, such as certain forms of fibroma and metritis. He reports eight cases, four of which demonstrate that the treatment with

calcium carbide is always followed by an amelioration, whether in cancer of the breast, metritis, or epithelioma of the uterus.

According to Livet the application of this remedy offers no practical difficulty. In cases of cancer of the neck of the uterus, the vulva and the vagina should first be thoroughly washed, disinfected, and then pieces of calcium carbide should be placed in the inequalities of the tumor. If a calcium carbide crayon is to be introduced into the cervical cavity, it must be done very rapidly, for when it comes in contact with the moist mucous membrane it produces a bubbling and nothing more is seen of it. In cancer of the breast the cavities are simply filled with pieces of calcium carbide.

As soon as the carbide comes in contact with the diseased parts acetylene is set free and escapes with a characteristic odor. In order to confine the acetylene, an ordinary dressing is used on the breast and tamponing is employed in the vagina. The action of calcium carbide is very rapid; the patient feels at once a burning sensation which lasts for an hour or two, and at the end of that time the pain, the discharge, and the fœtid odor disappear. The clot which is formed by the coagulant action of the acetylene presents a temporary barrier, which is sometimes definitive, to the hæmorrhage, and when the fœtid discharge is dried up the nauseous odor disappears. When the tampon of iodoform gauze which confines the acetylene is removed the vegetations will be seen to be diminished in volume and covered with a grayish eschar which is easily detached with a blunt curette. It is not necessary to renew the applications of the carbide oftener than every four or five days, unless the hæmorrhage should reappear on the day following the first application. If it is necessary to use the nascent lime to hasten the destruction of the neoplasm, the applications of the carbide may be more frequent. In all cases, the treatment, being purely symptomatic, should be continued until the fatal termination, which will be more or less retarded.

According to Livet, the symptoms caused by this treatment are few; in one case he observed diarrhœa and in another burns on the vaginal wall. Unfortunately, he says, the treatment is painful, and the

burning sensation is very intense and occasionally persists for a long time.

The Infectiousness of Milk.

Dr. James F. Kennedy, of Des Moines, Ia., read a paper on the infectiousness of milk before the American Public Health Association, Sept. 1896. Cow's milk alone was considered, since no other kind of milk is used by many infants and adults and since it is almost universal and, under proper conditions, the best substitute for human milk in the feeding of children. The composition of cow's milk was then given. Pure, uncontaminated cow's milk in proper proportions contains all the elements of a perfect food. In adults, milk alone will sustain life longer than any known food. It is said that during the year 1895, in England and Wales, one-fifth of the total deaths were children under one year old, and it has been shown that of this frightful mortality much the greater proportion were artificially fed children. In Berlin, in giving the certificates of deaths of children under one year, the fact must be stated as to whether the child was fed from the breast or brought up artificially. In 10,000 deaths thus reported it was found that two-thirds, or 7,646, were artificially fed. The cause of a large number of deaths of children artificially fed is inanition, the milk having been largely deprived of its nutritious properties by the addition of water—in many places commercial milk being diluted from 25 to 35 per cent. This dilution is not only a fraud upon the buyer, but a great crime perpetrated upon the innocent child, who needs the milk with its rich per cent of butter-fat as secreted by the udder, in order that it may grow and develop.

The object of the paper was to emphasize and intensify the importance of a sanitary inspection in addition to, if not to the exclusion of, the mere commercial examination. A faithful sanitary inspection must of necessity exclude all adulterants, whether for the purpose of increasing the bulk or changing the quality of the milk. The author then considers the danger of the transmission of tuberculosis by the blood and meat of tuberculous animals, and proceeds to the consideration of the danger from milk. Finally he said there were many expensive and inge-

nious contrivances for sterilizing milk, but he believes other simple methods which he had outlined were not only practicable and economical, but reliable.

Treatment of Uric Acid Gravel.

G. Klemperer, in the *Edinburgh Medical Journal*, discusses the medical treatment for the prevention of urinary concretions of uric acid, and the after treatment to prevent recurrence when such concretions have been removed by surgical intervention:

1. There must be sufficient diuresis; 1 g. of uric acid requires 7 litres of water for its solution at the body temperature. The patient, therefore, must drink sufficient water. Saline and drastic purgatives should be avoided, because they tend to make the urine more concentrated. If there be constipation water enemata may be used, which not only induce the bowels to act, but often favour diuresis as well. 2. Much sweating and much exercise should be avoided; in this respect the treatment of uric acid calculi and gravel differs from that of gout. 3. The amount of uric acid in the urine should be diminished. Uric acid must not be regarded as merely representing a stage in the production of urea, but as representing a special nitrogenous metabolism. It is, in fact, the result of the oxidation of nuclein, an albuminous substance which is contained in the cell nuclei; and distinguished by richness in phosphorus. To diminish the amount of uric acid in the urine, suitable foods containing little nuclein should be taken; such as milk, cheese, white of egg, bread, and vegetables. Foods, such as thymus, liver, and ordinary meats should be taken in moderation only, because they are specially rich in nuclein. The oxidation of the nuclei of leucocytes and other cells of the human body, some of which are of course constantly being destroyed, furnishes perhaps 0.3 to 0.6 g. of uric acid daily. The uric acid excretion is hardly greater when only milk is taken than it is during fasting. After 2 litres of milk the urine contains 0.5 to 0.6 g. uric acid. After 500 g. of meat the urine of the same man contains about 1 to 2 g. uric acid; after 500 gr. of thymus it will contain about $\frac{3}{4}$ gr. more uric acid. Brain and kidney cause

about the same amount of uric acid to be excreted as ordinary meat does. There is, however, as Horbазewski showed, no general quantitative relation between the nuclein in the food and the uric acid in the urine, for nuclein may also be excreted as urea, just as uric acid may be when it is taken by the mouth. The difference in different individuals seems to depend on some persons being able to transform the uric acid formed in their bodies more readily into urea than other persons can. The ingestion of xanthin bodies leads, just as the taking of nuclein does, to an increase of uric acid in the urine; therefore, excess of tea, coffee, and meat extract should be avoided. In regard to alcohol it is uncertain whether any special influence is exerted on the uric acid excretion. Excessive exercise, according to some authors, increases the excretion of uric acid, and should therefore be avoided.

(4) The acidity of the urine should be kept below a certain level, to prevent the precipitation of uric acid: For this purpose a draught containing sodium carbonate (for example, one of the alkaline mineral waters), or a citrate, may be taken in the forenoon and late in the afternoon; the acidity of the urine is naturally diminished in most persons after the midday.

(5) Urea may be given by the mouth to increase the solubility of the uric acid in the urine. The solvent action of urea on uric acid was first demonstrated by Ruedel, at Heidelberg, six years ago. Rosenfeld, in Breslau, made therapeutic use of urea for this purpose last year, but Klemperer has employed it for nearly two years in the form of a 5 per cent. to 10 per cent. aqueous solution. He gives a tablespoonful of the solution as a dose, and has obtained satisfactory results.

Strontium Bromide in Epilepsy.

In the *Lancet* Anthony Roche calls attention to this treatment, which, he says, has afforded some relief in reducing, if not curing, the manifestations of the conditions in epilepsy. The number of cases is limited, and no general deduction can be drawn from them, but the author thinks they are sufficiently encouraging to induce others to give this bromide a trial. He states that he has used it alone or in combination with other bromides in four ca-

ses. The patients were not cured, but they obtained much relief. In all of the cases other bromides had formerly been employed and the combination of the strontium seemed to be more beneficial. It has long been noticed, he says, that a combination of bromides acts more favorably than any one of them alone. It should be impressed upon the patient that he must take the medicine for a long period, whether it has at first a beneficial effect or not. Roche thinks the bromide of strontium well entitled to further trial.

The treatment adopted by him, besides meeting any general indications, obtaining the best hygienic surroundings possible, and advising a strictly vegetable diet with milk, is to give twenty grains of the bromide of strontium with from five to ten grains of the bromide of ammonium or sodium night and morning, largely diluted with water. The strontium is increased to one drachm twice a day rapidly if the smaller doses do not control the attacks, and if the patient does not complain of it. The majority of the patients, he says, took the strontium without any depression, but generally with the production of the acne rash on the face. *Liquor arsenicalis* added to the mixture controlled the rash and increased the appetite. This course in all the cases materially lessened the number of the attacks, and in eight of the cases there has been so far no return of them; that is after an interval of sixteen, twelve, eleven, nine, eight, eight and a half, five and a half, and four months respectively. As to the ultimate results of these cases, says Roche, it is impossible to judge, but the present improvement is so far encouraging.

Cleanliness in Obstetrical Practice.

Dr. J. S. Hill, before the Vermont Medical Society, said: The primal lesson to learn in all of our obstetrical work is the same that has been taught us by general surgery, namely, perfect cleanliness on the part of all concerned. The physician, nurse and patient should be placed in such a condition that the case will stay where it properly belongs in the physiological classification. Puerperal septicæmia should be relegated where cleanliness in surgery has consigned laudable pus to the archives of the past.

The honor of our profession and justice

to the patient demands that the forceps shall not be applied unnecessarily to satisfy the desire of the attending physician to finish the case, but that we give her the best our knowledge affords, and so place her in the best possible position to perform the duties of motherhood. Many times the forceps can be dispensed with if the physician will watch the anterior lip of the os, and prevent its becoming caught between the head of the child and the pubic bone of the mother, as after it is once caught the lip will swell enormously and presents a decided obstruction to the delivery of the child. By gentle pressure with the fingers between the pains this can almost always be prevented.

A common cause of rupture of the perineum will be found in the delivery of the shoulders. Care may be taken at the delivery of the head and no rupture occur as I have often noticed, and then when the shoulders are born a severe rupture be produced by inattention at this time. There should be just as much care paid to the delivery of the shoulders in preventing rupture of the perineum as at the time the head is born. If rupture occur it should be sutured at once with the same care that we would perform any other surgical procedure. Bichloride tablets and Antiseptic gauze should be carried by every physician in these cases so that he is in a position to attend to all complications.

Physicians should advise their patients to purchase the plain gauze, and then teach them the manner of sterilization by baking, to use after the labor, instead of the common, sometimes unclean napkins, so often used for this purpose.

Tuberculosis of the Tonsils, from a Clinical Standpoint.

D. Hans Ruge believes that tuberculosis of the tonsils is much more frequent than has heretofore been assumed. It can seldom be demonstrated clinically, because ulceration is often absent. The only symptom may be enlargement of the tonsil. The occurrence of primary tonsillar tuberculosis is probable. He reports what he believes to be such a case, the tuberculous process extending from the tonsil to the cervical vertebrae. He

also reports a case in which caries of the spine seemed to have followed tuberculosis of the tonsil. The author made microscopical examinations of the tonsils from seventeen individuals. Seven of the cases had tuberculous deposits in other localities. In five cases, also complicated with pulmonary tuberculosis, tubercle bacilli were demonstrated in the tonsil tissue. These observations of the author agree with the results of Strassmann, who found tubercular infection of the tonsils in thirteen out of fifteen cases of tuberculosis of the lungs.

Tuberculosis infection may occur in various ways: (1) Through the blood, e. g., miliary and other forms of generalized tuberculosis; (2) through the lymph, i. e., secondary to tuberculosis of the cervical glands; (3) through the sputum, particularly in tuberculosis of the lungs; (4) through the inspired air; (5) through the food, particularly milk and flesh infected with bovine tuberculosis.

Dr. Ruge believes that the tonsils are an important primary seat of tuberculous infection. Children who suffer from enlargement of the tonsils should not be permitted to live with phthisical relatives, especially if the latter have expectoration. For not only is the inspired air laden with tubercle bacilli, but the food and eating and drinking utensils may be contaminated with bacilli from the air or hands and mouth of the infected one. When the tonsils have been enlarged for a long time they should be extirpated; and removal may be beneficial even when tubercle already exists.

The Treatment of Pelvic Suppurations.

Dr. Howard Kelly believes that vaginal puncture ought to be attempted before recourse is had to laparotomy in the following cases:

(1) When there are compact inflammatory pus-cavities at the sides of or behind the uterus, in close contact with the vagina and separated by adhesions from the peritoneal cavity; (2) in old cases, in which a fistula exists opening into the rectum or bladder, or through the abdominal wall; (3) in cases of large hydrosalpinx easily accessible per vaginam; (4) for encysted pelvic peritonitis.

In such cases this operation presents

the following advantages: (1) It is not followed by nervous troubles, as is the case after hysterio-salpingo-oöphorectomy; (2) the functions of menstruation and conception are preserved; (3) rapid recovery—eight to ten days; (4) no danger of wounding the intestine, as may occur during difficult pelvic enucleation; (5) mortality less than two per cent.

Its dangers are: (1) Hemorrhage; (2) perforation of the rectum or the intestine (two cases); (3) penetration of the peritoneal cavity and death from infection (one case).

The following conditions will prevent complete recovery: (1) The presence of cellulitis extending to the pelvic walls and compressing the nerves and vessels; (2) contraction of the rectum due to the presence of perirectal inflammatory tissue; such tissue will persist and cause post-operative troubles.

In some cases exploratory incisions will be necessary: (1) To determine the exact condition and the necessity for radical operation; (2) to avoid puncture of the intestine if lying between the abscess cavity and the vaginal wall; (3) to facilitate complete evacuation of the pus or to guide the instrument into old pockets.

Vaginal puncture is indicated especially in young married women and girls, upon whom a radical operation ought not to be performed until conservative treatment has been exhausted.

If an exploratory incision is made, the hands which make the incision and the examination through the wound, should not be used in the vaginal part of the operation. The steps of the procedure would then come in the following order: (1) Disinfection of the vagina; (2) selection of the spot most favorable for puncture, avoiding arteries, ureters, and bladder; (3) introduction of the finger or the scissors into the abscess cavity and enlargement of the opening; (4) the use, if necessary, of large uterine dilators; (5) lavage of the abscess cavity with normal salt solution, if there is no reason to suspect a communication with the abdominal cavity; (6) drainage by gauze, rubber tube, or silver cannula.

Conservative operative treatment would consist of (1) separation of adherent purulent tubes from the vagina and their puncture; (2) removal of the tube or ovary of one side.

The indications for salpingo-oöphorectomy, either simple or including one horn of the uterus, are: (1) Simple pyosalpinx. (2) Simple pyosalpinx with an isolated purulent focus in the uterine horn.

The indications for hysterosalpingo-oöphorectomy are: (1) Double simple pyosalpinx inaccessible to vaginal puncture. (2) Double adherent pyosalpinx, accompanied by purulent metritis and endometritis. (3) Pelvic abscess accompanied by appendicitis. (4) Pelvic abscess complicated by adhesions, comprising the small intestines. (5) Pelvic abscess with fistulous tract opening into the sigmoid flexure or the small intestine. (6) Pelvic abscess accompanied with myomata.

The method of performing hysterosalpingo oöphorectomy by operating from left to right, or vice versa, presents the following advantages: (1) Great facility. (2) Easy recognition of the state of the lesions. (3) Easy removal of the tumors because they are attacked at the side where they are least adherent. (4) The vessels are easily clamped. (5) Abdominal drainage is unnecessary. (6) Avoidance of post-operative residues, adhesions, intestinal obstruction, peritonitis.

In order to drain through the uterine pedicle the cervical canal is dilated, and the gauze is introduced from the abdomen through the cervix into the vagina. The peritoneum is sutured above the uterine pedicle.

Physical Signs Other than Murmur in the Diagnosis of Valvular Diseases of the Heart.

Dr. James B. Herrick in a paper before the Mississippi Valley Medical Association, said: Standard textbooks teach that an endocardial murmur is not always an evidence of a valvular lesion, and also that a valvular defect may exist and still no murmur be present. Practically, however, conclusions are usually based upon the presence or absence of murmur. This is wrong, for there may be a valvular disease without a distinct murmur being audible. Other findings than murmur must be used in determining the existence of a valvular lesion. Every valvular lesion must result in hypertrophy and dila-

tation of the heart behind the valve diseased. An increase in tension of the pulmonary circulation follows any valvular lesion at the mitral orifice, and later any aortic disease. This will show in increased force of the pulmonic second tone. Stenosis of the orifices of the left heart means a smaller amount of blood in the general arterial circulation, therefore, lessened arterial tension. Failure of the right heart is followed by venous congestions—e. g. venous pulse, hepatic and portal congestion, anasarca, etc. Hypertrophy may be recognized by the heaving, forcible apex impulse. Epigastric pulsation may call attention to enlarged right heart. The jugular pulse, the hepatic and capillary pulse, are all of diagnostic value. The visible pulse of aortic regurgitation is almost pathognomonic. Palpitation is important. Extracardiac causes for murmur, such as might arise in a heart dislocated by pressures or retraction, can usually be excluded by percussion. A weak aortic sound may be an indication of obstruction. The reduplicated second sound may point to valvular disease. A sharply accentuated first sound at the apex is common in mitral stenosis. The peripheral tones in aortic regurgitation are a valuable confirmation.

Cases illustrating the foregoing were referred to Error in calling an inorganic murmur, organic, is readily made, unless the secondary sounds are carefully sought for. The intention of the paper was not to undervalue the importance of endocardial murmur, but to insist that it is only by the complexus of signs and symptoms that an accurate diagnosis can be made. Of all the evidences of heart disease, the least valuable is the endocardial murmur.

Retrodeviations of the Uterus.

Dr. Wm. Polk, of New York, expresses himself as opposed to the fixation of the body of a retrodeviated uterus if the patient is still capable of becoming pregnant. He prefers Alexander's operation, supplemented, if need be, by shortening of the utero-sacral ligaments, through a vaginal incision. If adhesions are present, they are first to be broken up. This is also the proper treatment for a retrodeviated uterus in a patient from whom tubes and ovaries has been previously

removed, and also for retrodeviation occurring after menopause. These operations are performed as follows: The anterior vaginal vault is incised, the uterus and adnexa freed from adhesions, if such exist. The uterus is anteverted, and its fundus drawn into the vagina. A silk suture is passed about the round ligament with its peritoneal investment far enough from the uterus to permit the sutured portion to be brought easily to the attachment of the ligament at the uterus. The loop thus made sutured together and returned to the round ligament beyond the point of reduplication. The procedure is repeated on the opposite side and the vaginal opening is closed. In order to shorten the utero-sacral ligaments, a transverse incision is made in the posterior cul-de-sac, and a silk ligature is passed through the ligament at about its middle, and then through the tissue at the junction of the vagina with the cervix. The ends of each suture are brought through into the vagina, tightly knotted, and left long until both are in position and ready for tightening. When the sutures are tightened the ligaments are doubled upon themselves, and by this means the cervix is pulled backward and upward. The cul-de-sac is closed with catgut. The drain is taken out in two weeks, but the patient must not get up for three weeks.

Cerebral Tumour and Mental Disturbance.

Dr. Mellon of New York reports in the State Hospital Bulletin a case of interest especially to alienists. A female patient aged sixty-six years was admitted from an almshouse, of which she had been an inmate for three years, on account of mental disturbance and delusions of persecution. She declared that her legs had been amputated, she talked incessantly, and there was much mental confusion and impairment of memory. She was also violent and destructive and refused her food. There was distinct musical murmur both at the apex and base and there was stabismus of the left eye, this being deviated upwards and inwards. She became irritable and quarrelsome and complained of headache, she declared that her husband had had his legs cut off in a railway accident, and she fre-

quently expressed a feeling of "being so stupid." Her health gradually failed, but one night she was found struggling with another patient, and after being put to bed she had a convulsion which lasted about five minutes. She fell out of bed and cut her face and had an attack of erysipelas. During a recrudescence of this attack she was found early one morning apparently in a sound slumber but she could not be roused. Her pulse was rapid and feeble, her respiration frequent, her temperature 105° F., and she was unconscious and unable to swallow food. In the course of an hour and a half she died. The immediate cause of death was apparently the erysipelas and the cardiac condition, but on removing the brain a tumour of considerable size was found lying against the right side of the pons and pressing upon that and the temporo-sphenoidal lobe. This was attached to the dura mater for two inches on the posterior border of the lesser wing of the sphenoid bone, which was eroded and roughened. The tumour weighed one and a quarter ounces; it was two inches long, one inch and three-quarters wide, and one inch thick. It was separate from the brain, merely pressing on it, and the third and sixth nerves was involved in the pressure. Histologically it was a fibro-sarcoma. The presence of a tumour was not suspected during life, and it is an interesting question what was the relation, if any, between the tumour and the disordered mental condition? It is scarcely likely that the one was dependent on the other in any very close relation, but it is instructive as indicating the care necessary in the investigation of every so-called mental case. No doubt mental disturbance, usually transitory, is often a feature in the course of cases of cerebral tumour, especially those which are basal and frontal; but the presence of a tumour in this particular case seems merely to have coincided with the occurrence of mental disturbance.

An Anti-Fat Which Produces Flesh.

Gentlemen:—There are a few considerations, which, in my opinion should not be ignored in using Phytoline. I was converted to the use of this valuable remedy several years ago by its successful

results in my own case, and as the old saying goes "one swears by the bridge that saved him." Since then my experience has been a varied one. I have not always achieved the same results in all my cases. Individual susceptibility to the action of the remedy differs. One case will respond promptly, the amount of absorbed and eliminated adipose being in some cases as high as pound a day, in others a steady decrease of no more than a pound a week would be maintained. Then again, some would not respond for four or five weeks consistent treatment at the end of which time they would begin to lose weight slowly as a rule, but sometimes quite rapidly. Whenever a patient fails to respond to treatment after a week, I examine the Phytoline carefully and see if there has been any change in its condition. It did not take me long to learn that it should not be put in uncolored glass bottles for the chemical rays of light decomposes it and causes a precipitation of the active properties. This is always preceded by a change in the color of the medicine, the change being from the beautiful characteristic color of the Popke-Berries to a dark, cloudy, reddish brown. When this property develops the therapeutic activity of the drug declines in the direct proportion to the degree of change. This is only temporary disadvantage, as you have always been ready to replace the deteriorated with the fresh preparation. I had one case that was peculiar. It was Mrs. C., a lady of about sixty five years of age. She had been increasing in weight, though not getting apparently any stronger. Her increase seemed to be entirely in the abdominal region and lower extremities. She had had rheumatism occasionally and was being troubled with a little difficulty at the heart. This was not a true case of obesity, but rather one of rheumatic heart complication. I knew that the anti-rheumatic properties of Phytoline could meet this indication, and I gave it to the patient with the injunction to take 10 drops in water, one-half hour before and one hour after each meal. She began to improve promptly. The swelling of the extremities subsided little by little, then the abdomen subsided in size, her heart's action became easier, her appetite improved, and *she took on flesh*—not fat, but good solid muscle.

She got well and has not been troubled since, although no one can expect a rheumatic heart to get well if there is any insufficiency of the valves. Should you require a short report or two from my case record book, just let me know and I will take pleasure in sending them to you.

P. A. LOHMAN, M. D.

Treatment of Acute Suppurative Disease of the Middle Ear by the General Practitioner.

In the treatment of these cases it is best that the patient remain in doors during the attack. During the first stage of congestion, it is well to order a free laxative, forbidding the use of stimulants or highly seasoned foods. When induced by a cold with high fever present, tincture of aconite, (one drop every hour, for an adult, for six or eight hours, then every two hours until fever abates,) will have an excellent effect with adults, the application of a leech in front of the tragus, is sometimes advised, allowing considerable blood to flow, which in the early stage of hyperæmia, may abort the inflammation.

For the relief of pain, we can with both adults and children, afford great relief by the application of dry or moist heat. The first by placing a small bag of heated sand or salt against the ear; the second by syringing very warm water into the meatus from time to time, as appears necessary. This will prove of marked benefit in relieving the acute suffering of the early stages. Then great relief is obtained by dropping into the ear a warm solution of atropin, four grains to the ounce, a few drops of which will often give ease from the pain. The writer has often employed with excellent success a solution of menthol 20 gr., gum camphor 20 gr., liquid alboline 1 ounce, several drops of which applied to the interior of the canal, has afforded entire relief from suffering.

Frequently there is associated with otitis media purulenta severe inflammation of the meatus, oftentimes closing the canal by swollen tissue. Here may be used dry or moist heat, olive oil, boric acid and glycerine, or, as has been suggested before, the application of leeches.

The presence of this inflammation is apt to interfere seriously with the dis-

charge of fluids accumulating within the tympanic cavity and prevents its exit.

If we can see the drum membrane there are two courses open to the physician: to await spontaneous perforation for the escape of retained fluids, or, if he discovers a bulging of the membrane in the posterior half, which is the more usual situation, he can incise the membrane at the posterior inferior quadrant, as the most desirable point of puncture.

Thick fluids often require the aid of the Politzer bag to force them through the opening. The force used by this method must be limited according to the amount of pain experienced. After the discharge is well established a douche of a solution of boric acid heated, of the strength of a dram to the pint, can be used according to the amount of discharge present, three times daily; but, perhaps, once daily will be sufficient. Hydrogen peroxide, of a fifteen volume strength, diluted one half, is very useful at this time, being a good antiseptic, and possessing excellent healing qualities. Dry boric acid powder is preferred by some, where the inflammation is severe, and the meatus arch wholly closed by swelling. Where there is a large amount of discharge, containing mucus, the astringent solutions, such as the chloride or sulphate of zinc, 2 to 5 gr.—3, are to be preferred to the dry method of treatment.

Then, again, we can use with good effect at this stage, resorcin, or a mixture of resorcin and boric acid; also there can be used other antiseptic solutions, as carbolic acid, 1 to 40 or 60; also boroglyceride and corrosive sublimate, 1-100, which will give good results.

If, after cicatrix is given where there has been perforation, there is impaired hearing power, the Politzer bag can be used two or three times a week with good results; in fact in all cases arising from catarrhal inflammation of the naso-pharyngeal mucous membrane, the proper use of the Politzer bag is necessary to keep open the eustachian passage to the tympanic cavity, which may have become partially or wholly closed by inflammatory thickening of its walls.

Preserve and treat food as you would your own body, remembering that in time food will be your body.

The Microscopical and Chemical Aids to Diagnosis,

On October 14th, 1896, before the Tri-state Medical Society at Chattanooga, Dr. Katharine R. Collins read a paper on "Microscopical and Chemical Aids to Diagnosis." The writer takes the position that by these two means most valuable assistance to diagnosis may be obtained, but at present it is, too often, the case that these examinations are hurriedly and carelessly made thus bringing about very unsatisfactory results. The examination of one specimen of urine being frequently considered all that is necessary, not as the abnormal constituents of the urine may occur without any coexisting pathological condition, as the presence of sugar or albumen after a meal rich in these substances, the one examination is without value. Also in the microscopical work many conditions may be overlooked in the single examination or the presence of the tubercle bacilli in the sputum tuberculous patients. Attention is then called to some of the difficulties interfering with the tests for sugar in the urine; the value of estimating the amount of chlorides excreted in pneumonia; the presence and value of the Drazo-Reaction in typhoid fever, pulmonary tuberculosis, puerperal conditions and concealed septic processes; the progress of structural diseases of the kidney being marked by the amount of urea present, a diminution, showing non elimination and consequent absorption.

In the examinations of the sputum, the Lurshman Leyden spirals in bronchial affections, the Charcol-Leyden crystals in bronchial asthma, the elastic fibres and the tubercle bacillus. The presence of the Klebs-Löffler bacillus of diphtheria should be demonstrated in every case of that disease, as it will lead to a sharper line being drawn between true diphtheria and these throat affections that simulate the disease. The pneumococcus of Frankel while not yet proven the sole cause of pneumonia is considered by many authorities to bear a casual relation to the disease. Going on to the blood examinations here the condition, number and relation of the red and white blood corpuscles are the only means by which we can distinguish between chlorosis and anæmia, and anæmia and leukæmia.

While Laverans experimented in 1880, demonstrating the presence in the blood of the plasmodia malarie, have been corroborated by other investigators in his own country and many in this, thus making malaria a definite disease. The Doctor proceeds to speak of the revolution of opinions in regard to the causative factor in typhoid fever. Babes and Brieger are quoted as expressing doubt as to the Eberth bacillus being the sole and only cause. Babes fails to find it in every case, while Brieger claims a mixed infection. Vaughan, of this country, in 1890, made experiments and demonstrated the presence in drinking water obtained from the source of the water supply of a town suffering from a severe epidemic of typhoid fever, of a number of germs capable of producing in rats and guinea pigs the characteristic symptoms of typhoid fever, and invariably fatal. That some of these germs found in the spleen after death, respond to the tests for the Eberth bacillus. Vaughan concludes from this that there are found in certain waters a number of germs capable of producing typhoid fever, and that the Eberth bacillus is an involution form of any one of these. In conclusion the Doctor urges the profession in the report of all cases to add the results of microscopical and chemical analysis of the excretions and secretions indicated.

A process has been patented in Germany for making a substitute for the natural skin for use in wounds. The muscular coating of the intestines of animals is divested of mucous membrane, and then treated in a pepsin solution until the muscular fibers are half digested. After a second treatment with tannin and gallic acid, a tissue is produced which can take the place of the natural skin, and which, when laid on the wound, is entirely absorbed during the healing process.

A member of a Zurich medical society recently exhibited a self-registering clinical thermometer, on which there were no degrees marked. The instrument could be left with the patient's family to take the temperature in the absence of the physician and the latter could then read it by means of an attachable scale of glass or metal.

Vaginal Hysterectomy by the Clamp Method.

Dr. Sherwood Dunn, late of Paris, France, now located at Los Angeles, California, presented a paper before the American Association of Obstetricians and Gynecologists at Richmond, Va., on "Vaginal Hysterectomy by the Clamp Method," emphasizing the following points:

That the clamp method has the advantage over the ligature of shortening the duration of the operation by fifty per cent., that fear of post operative hemorrhage is groundless. By a series of observations by the author at the autopsies of Broca Hospital, Paris; it was demonstrated that from the point of impingement of the forceps on the artery, the blood clot extended from three-fourths to one centimeter in its lumen, and that within 24 hours after the operation, that part of the clot nearest the instrument and consequently farthest from the blood current began to organize itself, and the fibrin, by the natural inflammatory action set up by the traumatism would, before forty-eight hours, assume a consistency that rendered its dislodgement practically impossible.

He gives as indications for this operation:

- 1; Diffuse chronic suppuration involving the peri-uterine tissues and appendages.

2. Multiplied adhesions, forming a mass of the organs.

3. Abdominal fistula following celiotomy and which resists cure by curettement, dilatation, etc.

4. Painful tumors of the adnexa following celiotomy.

5. Bi-lateral pustules.

6. Retroversion firmly adherent with prolapsed and diseased ovaries.

7. Pelvic neuralgia resisting all other treatment.

Statistics of this operation in the hands of well known operators show a mortality of 4 per cent. Prof. Richclot, of Paris, reports 144 cases with no deaths.

That although the opening into the peritoneal cavity is not stitched, it invariably closes, leaving no fistula and no prolapse of the abdominal contents. That the operation is so little known or practiced in the United States the author

would be pleased to put illustrated reprints into the hands of any one desiring to know the details and technique of the operation.

Infant Feeding: The Anti-dyscrasic Action of Cow's Milk.

Dr. M. F. Cupp, of Edinburg, Ind., in paper submitted to the Mississippi Valley Medical Association, at its St. Paul meeting, held that, owing to artificial methods of living, excesses, and large proportion of run down people, women was often unfit to nurse her child. It was argued that the present efforts to cultivate the mental powers at the expense of the physical is ruinous, and it was predicted that the physical degeneration caused will increase alarmingly within the next 500 years. Attention was directed to the use of cow's milk, properly modified and sterilized, as the most promising agent for combating dyscrasic states resulting from wrong practices and chronic diseases. The subject of infant feeding was viewed from the position of a country practitioner. The first observations suggesting the use of cow's milk were made in 1885 with cow's milk simply. Comparisons were made between children of same parents showing signs of constitutional dyscrasias, or active diseases. These children nourished exclusively on cow's milk grew plump, rosy, frolicsome, and intelligent, free from diseased mucous membranes (rhinitis, etc.) and manifesting different mental characteristics (temperament). Since 1885 the plan has been improved by careful modifications, (Meigs' mixture) and sterilization. The principal difficulty has been to prevent over-feeding. The writer deplors the idea of improving the physique by selection, since the children are as likely to preserve the defects of one parent as they are the excellences of the other.

I am pleased to say that the most excellent preparation "Seng" has given me complete satisfaction. I can sincerely recommend it in all cases where a delightful as well as efficacious remedy is indicated. It will afford me pleasure to speak of its merits on all suitable occasions.

GEO. W. BABCOCK, M. D.
Chelsea, Mass.

The Surgical Examination of the male Genito-Urinary Tract.

Dr. Howard Lilienthal, of New York City, contributes a paper on the above subject to the October International Journal of Surgery.

The writer discusses the value of the various known methods of genito urinary examination, calling especial attention to the endoscope and the cystoscope. He goes so far as to say that with the aid of a Welsbach gas burner and a concave lead reflector the endoscopic examination can be made so easily and with such advantage that the instrument deserves a place in the diagnosis and treatment of chronic urethral disease, such as is held by the laryngoscope in disease of the upper air passages.

Dr. Lilienthal also shows how invaluable the electric cystoscope has become, especially in the differential diagnosis of unilateral kidney disorders, notably suppurative pyelitis.

The paper closes with the description of an original method for the localization of a pus secreting area in the deep urethra. Briefly outlined the method is as follows:

Wash out the anterior urethra by retrojection with a soft catheter, using a clear solution. Push the catheter through the deep urethra into the bladder and wash out that viscus until the fluid comes back clear. Now withdraw the catheter till its eye is in the deep urethra, and then forcibly inject more fluid. It will run back into the bladder, and when the catheter is again pushed into that organ the fluid which escapes will be cloudy, or will contain mucus, though the fluid which washed the anterior urethra and that which washed the bladder may have been comparatively clear.

Attention is also called to the fact that thorough massage of either kidney, thus forcing secretion into a bladder previously well washed and containing but little clear fluid may be useful in determining unilateral renal trouble, even without the cystoscope. For this purpose each kidney must receive separate massage, and the fluid must be collected by catheter immediately after each kidney manipulation.

Clinical Proof of the Typhoid Bacillus.

Dr. G. Pollak in the Edinburgh Medical Journal mentions how, owing to the innumerable microbes found in the stools it becomes laborious to ascertain the presence of the typhoid bacillus. Many proposals for effecting this object have been of little value to the clinician. Lyonnet's coloured reaction seemed at first sight to be a considerable advance, as it was simple. To ordinary bouillon decolorised with animal charcoal he added 1 per thousand carbolic acid, 2 per cent. milk, sugar, and a little congo red. In the medium it was thought that only the typhoid bacillus coli communis would grow. If the medium remained clear, neither micro-organism was present. If it became turbid and red the typhoid bacillus was present; if turbid and violet, the colon bacillus. Pollak has been unable to obtain satisfactory results with this test. Elsner's method is very valuable. To 1 kg. of potato in 1 litre of water ordinary gelatine is added, and then 2.5 to 3 c.cm. of 1 in 10 normal soda solution for every gramme of gelatine used; 1 per cent. potassium iodide is also added just before use. The author found that the potassium iodide might be added some time previously, and yet the medium remain efficient. In twenty-four hours coarsely granular colonies of the colon bacillus, and in forty-eight the shining and finely granular colonies of the typhoid bacillus develop. The author has used this method in 20 cases, mostly doubtful, of typhoid fever, and in 51 stools, with very satisfactory results. He appends a table showing the results obtained, and give short notes of the cases. He inoculates 3 c.cm. of ordinary bouillon with a little of the stool, and then makes two plate subcultures. The bacillus *fæcalis alcaligenes* grows on this medium as well as the typhoid and colon bacillus. The author concludes that Elsner's method is suitable for clinical work. In doubtful cases it is always of value, but it must be remembered that the three above-named micro-organisms may be separated out. Thus the other tests for the typhoid bacillus must not be neglected, so as to prove that the micro-organism is the typhoid bacillus; the appearance of the plate cultures cannot be solely relied upon.

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A good and well made powder of pleasant flavour. CONTAINS NO TRACE OF ANY IMPURITY.—*The Lancet, London, Eng.*

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It has acquired a high reputation, and is adapted to children as well as adults—in fact, we have used it successfully with children from birth.—*The Post Graduate Journal.*

The results attending its use have been very satisfactory.— * * * M.D., in *New York State Medical Reporter.*

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★ 'Physician's-samples' sent free, post-paid, to any physician—or as he may direct. ★
JOHN CARLE & SONS, Wholesale Druggists, 153 Water Street, NEW YORK CITY, N. Y.

The Ultimate Results in Eighty-six Cases of Fibromata of the Uterus Treated by the Apostoli Method.

Dr. G. Betton Massey reported eighty-six consecutive cases of Uterine Fibroids treated by the Apostoli method to the American Electro-Therapeutic Association, at its annual meeting in Boston, Sept. 28th, 1896.

After considerable correspondence and inquiry the ultimate results (or those existing from two to eight years after cessation of treatment) were ascertained in seventy-five cases, and were found to be as follows:

Anatomic and symptomatic cure:

- | | |
|---|----|
| (a) Destroyed piecemeal by electrolysis through cervix. | I |
| (b) Extruded through cervix in whole or part, | 4 |
| (c) Disappeared under absorption, | 12 |

Symptomatic cure:

- | | |
|------------------------------------|----|
| (a) With great reduction in size, | 16 |
| (b) With slight reduction in size, | 21 |
| (c) Without change in size, | 10 |

Total cases resulting in practical success,	64
---	----

Symptomatic improvement only,	4
-------------------------------	---

Failure to effect any change,	6
-------------------------------	---

Made worse,	1
-------------	---

Total cases resulting in failure to relieve,	11
--	----

The sixty-four successful cases give a percentage of 85.33 per cent. of successes, and the eleven cases of slight improvement and no improvement and the one made worse give a percentage of 14.88 per cent. of failures.

The one case that was made worse was a cystic intra-uterine growth that was improperly treated by electricity before it was generally known that such cases should not be treated by the classical Apostoli method. Future statistics will naturally be clear of such errors of practice, hence it may be said that the practical ultimate results in a hundred cases properly treated by electricity will be at least eighty-five cases successfully and satisfactorily handled, and fifteen cases in which electricity will do no good

nor yet any harm, leaving the tumors unchanged for other methods promising greater relief.

Of the twelve tumors reported as having disappeared by absorption, this fact was verified by the reader of the paper in but seven instances, the remainder being reported by the patients themselves.

Prolonged Expiration.

A September number of the American Medical and Surgical Bulletin of New York contains a paper on Prolonged Expiration from the pen of Dr. A. Edgar Tussey, of Philadelphia.

The author begs to call the attention of the general practitioner to the great importance of this sign in making a diagnosis of incipient tuberculosis, and to the fact that many physicians are not familiar with its destructive features.

"Medical men fail to analyze sound phenomena; peculiar and destructive expressions are thus not received as permanent memories. The ear must be trained to *analyze*,"

"Heterogeneity in the elements producing certain effects must not be resolved into homogeneity of impression."

"When the impressions made by the picturesque are *simple* and easily retained the ætiological factors concerned in the production of a large proportion of impressions are *complex* and demand a *true* analysis, otherwise they are as evanescent as the delicate frost-work when acted upon by the warm rays of the rising sun."

In virtue of the infallibility with which this interesting expression of disease points to an initial process of vesicular infiltration, the author concludes with an earnest injunction to his medical brethren to familiarize themselves with it at any cost, as the harvest gleaned from such knowledge is most gratifying.

Jenner's prolonged expiration may always be recognized by five changes which exist as a substitute for the vesicular breathing proper:

- | | | |
|-------------|---|---------------------------------|
| INSPIRATION | { | Quality of sound, |
| | | <i>broncho-vesicular</i> pitch, |
| | | raised. |
| EXPIRATION | { | Quality, <i>brocho-vesicu-</i> |
| | | pitch, raised, duration, |
| | | prolonged. |

ALWAYS THE SAME.

A STANDARD OF ANTISEPTIC WORTH.

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DESCRIPTIVE LITERATURE UPON APPLICATION.

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The Objections to Sterilized Milk for Children.

Campbell, in the British Medical Journal, says:

Undoubtedly the chief objection to sterilized milk is, that its casein is less digestible than that of unsterilized milk. In the artificial digestion of diluted milk rich in cream, I found that the casein of the unsterilized milk was digested in about half the time required by the casein of the sterilized milk. Further, there is a difference in the action of rennet, the coagulum in the one case being quite different from that in the other. This is partly due to the precipitation of calcium salts, but not entirely, for if we add hydrochloric acid, and thus re-dissolve these salts, we find that the coagula are still different. This relative indigestibility of the casein of sterilized milk is of the greatest importance, for in most cases it renders it necessary that the intervals between the meals should be longer for infants fed upon sterilized than upon unsterilized milk. Indeed, where there is a certain amount of gastric atony, the infant may be unable to take a sufficient quantity of milk for the purpose of nourishment, and thus may undergo a process of slow starvation.

The experience of cases such as these has given rise to the belief that rickets, and especially scurvy rickets, may be induced by the use of sterilized milk. This is true, I believe, but the cause of these diseases is that the child has been receiving insufficient food, and especially an insufficiency of carbo-hydrates and fats, rather than that there is a "subtle change" in the milk as the result of sterilization. Randolph, of Philadelphia, conducted a series of experiments upon adults, and found that the raw milk had in every case been digested more rapidly than the boiled.

A second, though less important objection is the fact that the taste and smell of the milk are altered, and although this rarely matters in the case of young infants, it sometimes causes difficulty with older children.

Another disadvantage is, that the greater part of the carbonic acid gas in the milk is driven off, thus inducing an alteration in the composition of the phos-

phates, and a precipitation of calcium and magnesium carbonates.

Fourthly, some of the fat globules coalesce, the result being that the emulsification is not quite so perfect as in raw milk.

Fifthly, the lact-albumen is coagulated and gives rise to the albuminous skin which forms upon the surface as the milk cools, even if it has not been boiled, and contains entangled in its meshes a considerable quantity of fat, thus rendering the milk correspondingly poor in this most important ingredient.

Sixthly, any leucocytes that may be present in the milk are killed during sterilization; however, as at present we know so little about the *role* of leucocytes in milk, we are unable to state whether this is a disadvantage or not.

Pain Relieved with Utmost Safety.

Albert M. Williams, A. M., M. D., of Bradford, Pa., says: "I have used antikamnia in my practice since its first introduction and used it extensively. At first I was a little cautious and a little apprehensive, and rarely ventured on larger doses than five grains; but for several years I have given it in ten and fifteen-grain doses to adults and when needed, repeating every hour or two hours. I have rarely been disappointed in controlling pain, if the pain was of a character to be controlled by medicine. In severe neuralgias or any severe form of pain, my method is to prescribe ten grains to be given every hour till the pain ceases. I seldom use morphia or opium in any form. I have seen so many unfortunate victims of the opium habit that I shun its use, antikamnia is my sheet anchor. The effects of opium and its alkaloids too, are most disagreeable to many people. I always suffered untold misery when I had taken even a small dose of morphia; itching and nausea especially continuing for about two days. There is none of this following the use of antikamnia, and I have never heard of a victim of the antikamnia habit. I have yet to see the first case where any alarming symptoms have followed its administration. I have for a long time been in the habit of prescribing it in a little larger doses than are recommended and any bad results from its use must be due to some idiosyncrasy on the part of the patient."

RHEUMAGON,

A NORMAL OSMOTIC.

Regulating Nutrition and Waste.

ANTILITHIC—A Solvent of Uric Acid.

ANALGESIC—A Solvent of Pathogenic Nerve environment.

SORBEFACIENT—From within, and without, capable of carrying dermatological remedies directly into the blood.

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ALTA PHARMACAL COMPANY,
ST. LOUIS, MO.

The Use of Preparations of Cod Liver Oil in Cases of Malnutrition and Malassimilation.

By N. M. BASKETT, M. D., Moberly, Mo.

A great desideratum in the medical practice is an ideal tissue builder. The busy practitioner frequently finds himself at a loss to decide upon the most efficient remedy for a given case in spite of the great variety of drugs from which he may select. This is especially true in cases where tissue changes and waste are continuous, and where it is necessary to check the disintegration and repair and restore the waste of cellular tissue, are required, both for their antidotal properties and their food values. Under these circumstances that remedy which most nearly meets these requirements of the case is of most value.

I am rarely constrained to lend my endorsement to any proprietary remedy, though admitting in a general way that many of them are excellent for the treatment of diseases for which they are recommended. But I have found in the use of Hagee's Cord OL. Morrhuæ Comp. such marked benefit, that I feel justified in calling the attention of the profession to its merits, both as medicine and tissue builder. Its elegance and excellence as a pharmaceutical product, the ease with which it is assimilated, its retention by the most delicate stomachs, all make it desirable for exhibition in cases where the principal indication is to guard the patient's stomach. Used in anæmic conditions, associated with chlorosis, when the catamenia are slow in asserting themselves or dysmenorrhæa exists on account of a deficiency of red blood corpuscles, or in cases of menorrhagia requiring the use of a tonic, I have secured excellent results, and have seen patients rapidly relieved of untoward symptoms. While debilitated conditions followed typhoid fever, when convalescence is slow, the effects of the remedy are all that can be desired. During convalescence from pneumonia; when resolution is slow and the normal respiratory murmur is not rapidly established, I know of no better remedy. I have used it satisfactorily with children recovering from summer diarrhæa, in con-

nection with milk or some of the most desirable baby food upon the market.

In the primary stages of phthisis pulmonalis I have confidence of its curative powers while it has proved of advantage in my hands in all stages of the disease. It is particularly in those cases when the stomach becomes so rebellious and so intollerant of medication, that I have found this remedy well borne and beneficial to the sufferer. I could cite many cases in which I have used the cordial, but will only subjoin one for the consideration of the profession.

M. H., female, white, aged 16, American, tall, slim, slightly cachectic, poorly developed, general health below normal. Suffers from amenorrhœa. Has some cough; mammary glands undeveloped, pulse 90, elevation of temperature one-half degree above normal. No expectoration with cough, no sinking of tissues above clavicle, slight dullness on percussion in apices of both lungs. Auscultation reveals dry rales in apices of both lungs; slight hoarseness. History shows that menses appeared at fourteen and were regular for three or four months, though scanty and painful, then ceased and had not reappeared up to present date. Prescribed Cord. OL. Morrhuæ Comp. Hagee's, teaspoonful four times per day. Tinct. ferri chlorid gtts X three times per day, and occasional hot hip baths. The menstrual flow was re-established in two months and recovery was rapid and uneventful. At this time the patient is in excellent health and has no tendency to relapse to former condition.

P. N. de Duboeay M. D. F. R. C. S. of Tallulah Falls, Rabun Co. Ga. Sept. 22nd, 1896, writes:

I have used Papine, Bromidia & Iodia extensively in my practice, and expect to continue doing so, as these preparations undoubtedly are of great value. I have found your Iodia specially useful in cases of Menstrual disorder generally and as an Alternative. Papine must of Necessity come greatly into vogue with the general practitioner relieving pain as it does without unpleasant after effects. It was of great value to me in treating the pain in a female suffering with (incurable) Cancer.

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The Antiseptic Action of Silver Compounds.

At the last Surgical Congress Dr. Cr  de of Dresden spoke on the subject of the antiseptic action of silver compounds, and he is now publishing the results of his further investigations. He states that, according to the experiments of Halsted, the metals, and especially silver, have a bactericidal property. Metallic silver applied to an aseptic wound is quite inactive, but when the wound is infected the silver undergoes certain alterations by which it develops strong antiseptic qualities. Dr. Cr  de has succeeded in showing that this unexpected effect is due to the bacteria producing lactic acid, which in its turn forms lactate of silver—a white inodorous powder soluble in fifteen parts of water. Streptococci, staphylococci, and anthrax bacilli are destroyed by it in less than five minutes. The growing of schizomyceta on blood serum is hindered by a solution of 1 in 80,000, whilst sublimate of mercury has the same effect only when the solution has the strength of 1 in 20,000. Under the name of "actol" lactate of silver has been used for surgical purposes. Subcutaneous injections of it for anthrax and erysipelas have given very satisfactory results, but it irritates the tissues, and by its ready solubility may have a toxic action. The author therefore looked for some other liver compound which might be free from these drawbacks. Citrate of silver was found to answer best, and was used for 400 hospital in-patients and more than 1000 out-patients. It not only produced no irritation, but the wounds healed under this treatment with a celerity hitherto unknown. The method of application is as follows. Aseptic wounds, after being sutured, are covered with gauze filled with metallic silver in powder, smaller wounds with a layer of silver foil only. Wounds which are not to be sutured are sprinkled with silver in powder and then dressed with ordinary aseptic gauze. Infected wounds require dressing with citrate of silver ("itrol"), and complications, such as erysipelas, cellulitis, &c., are treated by subcutaneous injections of this salt. Cavities such as the bladder may be washed out with a solution of "itrol" containing from 1 to

4 parts of the salt in 10,000. The suture material—silk, catgut, &c.—is covered with a thin layer of metallic silver.

Etiology of Lobular Pneumonia.

Kreibich of Vienna, examined 27 cases of lobular pneumonia, 20 of which were of the inspiration variety. In 23 he found the diplococcus pneumoniae 11 times in pure culture, 5 times with *B. coli communis*. 4 times with staphylococcus pyogenes aureus, once with each *B. pneumoniae streptococcus pyogenes*, and another unrecognised micro-organism. He asserts that broncho-pneumonia, and especially inspiration pneumonia, are generally caused by the diplococcus pneumoniae, but he notes that in man *B. coli* is also capable of causing lobar and lobular pneumonia. As an auto-infection from the cavity of the mouth, the occurrence of lobular pneumonia dependent upon the diplococcus pneumoniae is favoured by such conditions as heart failure, hypostatic hyperaemia, etc. In most cases of coli pneumonia there is infection by the blood from the intestine or from inflammatory processes in the urogenital tract. Inspiration pneumonia may end in suppuration, in gangrene, or in induration. With regard to the first termination, the variety of exudation is not generally influenced by the question whether the diplococcus was alone present or in company with other organisms, though the exudation has a tendency to be bloody if large infective masses are suddenly inspired. Gangrene is generally caused by anaerobes and saprophytes probably present in the inspired mass, which induce putrid changes in the contents of the bronchi, and by their katabolic products lead to necrosis of the inflamed portions of the lung. Induration apparently occurs when the metabolic products of the bacteria constitute a long continued stimulus to productive inflammation.

J. W. Pierce, M. D., Bean Station, Tenn., writes: I have used Hagee's Cord. C. L. Oil Comp, with much satisfaction in chronic bronchial troubles. It is not only palatable and agreeable to the stomach, but its building and expectorant properties are well manifested.



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The Duration of Life in the Medical Profession.

Dr. Hægler, has recently published an interesting essay on the duration of life in the medical profession. It has long been known that among medical men the general population of a like age, and that clergymen, for instance, on an average live twenty years longer than medical practitioners. According to some old statistics only schoolmasters in rural districts have a less expectation of life than members of the medical profession, 75 per cent. of the latter dying before the fiftieth year and 90 per cent. before the sixtieth year of age. These numbers, however, seem to be exaggerated, for a new statistical work by Dr. Geissler, states that 80 per cent of the practitioners reached their sixtieth and 25 per cent. even their seventieth year. It is worth mention that medical mortality is very high, especially in the early years after entering on practice, and the life insurance premium to be paid by medical practitioners is on this account 10 per cent. higher than the general insurance rate. The excessive mortality in our profession is not only caused by infectious diseases, which medical practitioners are liable to contract, but also to over-exertion and the impossibility of securing regular seasons for rest and meals. Typhoid fever, and diseases of the lungs (phthisis excepted) are very frequent as causes of death, whilst suicide is rarer than among the general population. It is generally recognised that the conditions of life prevailing among any particular class or section of the population have an important bearing on the occurrence of longevity in that class. In former times the services of medical men were but little esteemed; their incomes were as a rule very small, and consequently their average lifetime was short. Then came a period when the condition of the practitioners improved, and accordingly the average duration of life increased, but during the last ten or twenty years various circumstances, including the overcrowding of the profession, have combined to lower the standard of living, and there is thus reason to suppose that the duration of life will be correspondingly shortened.

The Alkaloids of Cod Liver Oil.

The alkaloids of Cod Liver Oil are stimulants to the appetite, digestion and process of tissue building, and the fatty matter of Cod Liver Oil is utterly unfit for food on account of its nauseous taste, tendency to cause eructations and to disorder the stomach. In the alkaloid reside the virtues of the oil, not in the fatty matter. As a food the fatty matter has nothing to recommend it in place of butter and cream, which are far more palatable and digestible.

The reasons why a man can sometimes gain a pound a day on an ounce of Cod Liver Oil can be found by reading an account of the physiological action of Cod Liver Oil alkaloids as contained in the paper read before the French Academy of Medicine by M. M. Gautier and Morgues, and entitled "Les Alcaloides de L'Hulle de Foie de Morue."

It is due to the presence of the alkaloids which stimulate the appetite, digestion and tissue building. Appetite causes him to eat a larger quantity of food with relish, digestion is set to work by the alkaloids—not by the fatty matter of the oil; digestion gets the pound for him out of his common food; and the metabolic power of the body stimulated by the alkaloids builds that food into healthy tissue. Therefore, why give the nauseating fatty matter when you can gain the same end in a better way by prescribing Stearns' Wine of Cod Liver Oil. It contains the alkaloids of Cod Liver Oil—none of its nauseating fatty matter. It is pleasant to take, agrees with the most delicate stomachs, and when given to your patient with his food will aid in its digestion and assimilation and will "rebuild the body."
—*The New Idea.*

T. Griswold Comstock, M. D., St. Louis, Mo., writes: I have used Hæge's Cord. Cod Liver Oil Comp. with the best results. The preparation is agreeable, and that is a great recommendation for it. I prescribe it, and certainly approve of it in the highest terms.

Courage, cheerfulness, and a desire to work, Moleschott says, depends mostly on good nutrition.

The Charlotte Medical Journal.

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No. 5.

Purpura*.

By DR. E. C. EVANS, Sedalia, Mo.

A disease of the skin characterized by the development of variously sized and shaped, smooth, reddish or purplish hemorrhagic patches, which may or may not be elevated above the surface, and which do not disappear under pressure.

The affection may conveniently be considered under two heads, idiopathic and symptomatic purpura.

Idiopathic Purpura is usually considered to include two varieties, P. Simplex and P. hemorrhagica, although these divisions (like those idiopathic and symptomatic) are arbitrary, and the two varieties may run into each other with intermediate cases.

Purpura simplex is characterized by the appearance, in successive crops, of numerous petechial spots in the skin and visible mucous surfaces. These are usually attended with little or no constitutional disturbance. Occasionally, however, malaise, loss of appetite, and fatigue on exertion are experienced for some days before the cutaneous lesions appear. These generally make their appearance suddenly, often in the course of a night, at other times more gradually.

The lesions are usually bright red in color at first, becoming more purplish in hue later. They are sharply defined, roundish, ovalish, or irregular, sometimes circinate in form, and vary from the size of a pin-point to that of a pea or small coin. They usually occur in numbers symmetrically, the lower limbs being a favorite seat, and in particular the flexor surface of the thigh. They may occur sparsely scattered over the whole body. Usually there are no subjective symptoms connected with the appearance of purpura simplex; occasionally there is a little itching on the

first appearance of the spots, and they are not infrequently tender on pressure.

Purpura simplex is more frequently observed in the old than in the young. It may last from a fortnight to several months, or even longer, the lesions coming out in successive crops. The affection occurs in the well-nourished and apparently healthy, as well as in the debilitated.

In addition to Purpura simplex I only propose to speak of three other forms of the disease as I have had one case of each variety of which I write, and beside to exhaust the literature of the subject would require entirely too much time. To Wit.—Purpura Rhumatica, Purpura Scorbutica, and Infectious Purpura.

Purpura rheumatic, is usually found occurring upon the lower limbs, about the tibio-tarsal articulations or the knees, and on the lower and inner aspect of the thighs. The eruption consists of petchie, more rarely of true ecchymoses, and is commonly symmetrical, although it is sometimes seen limited to a knee or elbow. Urticaria-like papules are not infrequently observed to exist with the petchie.

P. rheumatica may occur suddenly and without prodromes. Ordinarily, however, pricking, weight, and tension in the part to be affected precedes the appearance of the rash, which is accompanied by some rise of temperature, rarely above 101.3 per cent. F.

The articular pains are usually experienced in the insteps, the knees, and the carpal region. The effusion is slight, movement of the affected joints is painful, and pressure near the ligaments gives rise at times to sharp pain.

Edema of the cellular tissue is often a marked feature of the disease. The skin becomes stretched, reddish, pits, and is painful on pressure. Sometimes the edema is extreme and seems almost phlegmonous in character, with extensive ecchymoses. Soyer has given to this variety the name of febrile purpuric edema.

*Read before the recent meeting of the Pettes County Medical Society.

Very exceptionally the rheumatic symptoms may become generalized, and even heart complications may follow, but usually we have purpura complicated with slight rheumatism. An acute, febrile, general rheumatism with purpura as an accompaniment is very uncommon.

Though purpura rheumatica is usually a comparatively slight malady, yet cases have been recorded in which hemorrhage from the stomach and bowels, gangrene of the face, limbs, intestine, etc., have gravely complicated the attack.

The duration of the attack of purpura rheumatica is brief, but the disease may be, and usually is, prolonged by successive attacks for weeks, and even months. It usually terminates in recovery, and relapses are rare.

The affection is most apt to attack persons in whom a rheumatic taint exists. Nervous exhaustion, privation, and exposure to cold are among the exciting causes.

Purpura scorbutica shows itself first by marked constitutional symptoms. Increasing cachexia, extreme lassitude, heavy, dull pains throughout the body, with fatigue upon the least movement, are among the prodromal symptoms. The skin is dry, of a livid yellowish, earthy color. The mucous surfaces are pale, and there are frequently slight bloating of the face. In severe cases violent pains in the trunk and limbs, most intense about the knees and thorax, are experienced. The thoracic pain sometimes even interferes with respiration, the thorax feels as if encircled by a band of steel.

The first symptoms of purpura, which are apt to show themselves after eight days of prodromes, consist in the appearance of a sort of purpuric goose-flesh, hemorrhage taking place about the hair-follicles of the lower limbs. (According to Lasegue and Legroux, in their admirable report upon scurvy in Paris during the Franco-German war the follicular petechie appear under the form of small roundish elevations of a deep violaceous-red color in robust patients, and of a bluish lilac color in individuals much enfeebled by previous disease. The lesions is traversed by a hair, or rather a grayish point can be seen in its centre, made up of a little heap of dried epidermic scales under which a hair curls upon

itself. On lifting this little epidermic mass with the point of a needle the imprisoned hair is released, and is then seen to be vitiated in its growth, thinned, twisted, and occasionally split at its extremity, or atrophied and deviating from its normal direction.

This goose-fleshlike purpuric eruption is caused by a sub-epidermic hemorrhage about the hair-bulbs, and does not extend more than one or two millimetres beyond the hair which is its centre.

This form of Purpura occurs by preference upon the external and anterior aspect of the leg, and next in frequency upon the same aspect of the thigh. It is also found upon the extensor surface of the forearm, rarely upon the trunk. Some single hairs of the eyebrows have been observed to be surrounded by the eruption. In the case of hairy men the eruption may at times be confluent. In women it is usually discrete. In the dirty and careless it is more marked.

The lesions appear suddenly and simultaneously; they may last from one to two months and then disappear, leaving no trace, excepting that some hairs are apt to be distorted from pressure upon their roots.)

In mild cases of purpura scorbutica the petechial eruption may be the only pathognomonic sign. In many cases of scorbutic purpura, in fact in most of them, the mucous membrane also shows certain symptoms. At first, the congested gums show a blue venous band running along their free edge, (of a millimetre or so in width,) while the swollen interdental processes look almost like ripe currants. In severe forms of the disease the ecchymosed gums may be greatly tumefied, even rising up so as to conceal the teeth and prevent mastication, being covered with fungous growths and bleeding on the lightest touch. The teeth are loosened and fall out, the breath is fetid, and in strumous persons the sub-maxillary lymphatic glands may become inflamed. The maxillary bones may even become necrosed. Hemorrhagic effusions frequently take place into the mucous membrane of the mouth, particularly about the hard palate and velum, in the form either of petechie or of large ecchymoses. (Lasegue and Legroux call attention to the important fact that the gingival changes are often wanting in

scurvy, and are far from giving a highly characteristic symptom. Though this may be the case on land and in certain epidemics, yet among sailors the gums are often severely affected. Possibly the previous condition of the teeth may influence this symptom.)

At a later period in the course of purpura scorbutica more or less extensive and deep seated ecchymoses, resembling precisely the effect of ordinary contusions, are commonly observed. These are usually found upon the lower limbs and on dependent portions of the body, as the instep, calf, and popliteal region. However, in persons who use the arms in working, these limbs, or the one of these most used, may be the chief seat of the lesions. Old scars are also frequently attacked.

These ecchymoses correspond to hemorrhagic exudations into the subcutaneous cellular tissue or the deep muscular masses. Sometimes they are large and ill defined, more rarely they may be observed as sharply circumscribed tumors.

The larger ecchymoses may not, at first, give any sign of their presence by outward discoloration, but moments become painful and walking may be impossible. In the neighborhood of the effusion the skin is drawn, smooth, and hot to the touch. Pressure gives rise to severe pain. The muscular masses are peculiarly rigid, the limb sometimes looking as if distended by an injection of wax, which had penetrated into all the interstices. Edema, hard and localized, may show itself, with diffuse limits; but occasionally these are sharply defined, like the groove produced by a garter in a swollen limb. The points most frequently affected are the muscular masses of the calves, the fatty areolar tissue about the tendo Achillis, the flexor tendons of the thigh, the popliteal space, and the posterior muscles of the thigh.

These infiltrations make their appearance suddenly, in the course of a few hours, and may be accompanied by slight feverishness. Walking is almost impossible, the limbs seem benumbed. Spontaneous internal pain may be experienced if the hemorrhagic effusion occurs between a bony surface and the inextensible skin. Edema also occurs at this stage of the disease, due to em-

barrassment of the circulation, and is to be distinguished from the cachectic edema, the latter being increased whenever the patient puts foot to the ground.

When resolution, always a slow process, sets in, the skin becomes brown, soft, tense, and shining, the epidermis looks as it does when an attack of eczema is passing off, while the derma is hard, compact, woody, and almost incompressible. Movement gives rise to pain, the limbs are kept immovable, and the joints bathed in the infiltration become rigid. Sometimes there is a slight intra-articular effusion. As the effusion is absorbed the woody condition becomes more marked. When the patient first begins to walk, a fresh eruption of petechie shows the embarrassment of the venous circulation. The color of the skin, after passing through various shades of blue, black, green, and yellow, takes on a bronze tint, which sometimes lasts a long time.

In connection with the purpuric eruption it may be noted that abrasions, scratches, etc., are apt to result in unhealthy ulcers.

The urine in Purpura scorbutica is scanty and high-colored, and yields a smaller amount of urea than normal. The albuminoids are increased, and extractive matters are also more abundant than normal, showing excessive molecular disintegration.

In severe cases of Purpura hemorrhagica, hemorrhage from the stomach and intestine, the bladder, the nose, the hemorrhoidal veins, etc., may occur. Gingival, nasal, intestinal, and uterine hemorrhages are most common. In the extreme forms of the disease the cachectic edema spread and becomes generalized—a very unfavorable symptom. Diarrhea succeeds constipation, serous or sero-sanguinolent effusion occurs in the larger articulations, in the visceral serous sacs, and under the detached periosteum. Scorbutic periostitis, necrosis of the maxilla or tibia, separation of the epiphyses, dislocation of the callus of old fractures, and sometimes mortal syncope, may supervene. Death results from a general breaking down at all points, the intellectual functions alone remaining intact until the last.

Purpura scorbutica usually runs a rapid course. In favorable cases it may

last only a week or a fortnight. Severe symptoms are not apt to supervene unless the affection has lasted for several months. Death may occur in syncope, in an attack of dyspnea, or as a result of exhaustion from hemorrhage. Convalescence is always prolonged, and is accompanied by extreme weakness. Fever is usually absent, but may show itself in a slight degree after considerable hemorrhages.

Infectious purpura shows itself in the course of severe pyrexia or toxic conditions. It forms one of the series of symptoms in such affections as typhus, plague, yellow fever, and phosphorus-poisoning; or it may show itself on rare occasions in the severer forms of variola, scarlatina, measles, or cerebro-spinal meningitis. In the former class of cases the appearance of purpura does not materially increase the gravity of the prognosis, but in the latter forms of disease it is a symptom of great gravity, and is not infrequently the precursor of a series of severe visceral hemorrhages (see Burkley, Neumann, and other authors on purpura variolosa.)

The cutaneous lesions are diffuse, and may occur on any or all parts of the body. They are a mixture of petechie and of extensive ecchymoses, hæmaturia, gastric and intestinal hemorrhages hemoptysis, etc. The general condition is profoundly influenced; high fever with anxious respiration supervenes, and the patient rapidly succumbs with symptoms of ataxo-adymania, or is carried off by excessive hemorrhages. The purpuric eruption is often preceded by the appearance of diffuse exanthemata, as the scarlatiniform or rebelliform rash of variola.

(Similar purpuric eruptions occur in connection with affections of the liver and spleen, such as icterus gravis and leucocythemia.)

To this class of purpuras belong those caused by the indigestion of the various medicines, as iodide of potassium, salicylic acid, etc., though these purpuras are of a very much milder type, resembling purpura simplex, and not being accompanied visceral hemorrhages.)

Diagnosis of Purpura.—The diagnosis of purpura rarely offers any difficulty. The essential lesion, an extravasation of blood into the skin, is different from the lesions of all other skin affections. Pres-

sure of the finger on the matured lesion fails to make it disappear, a condition which does not obtain in the papulo-macular syphiloderm or any other skin disease with which purpura is liable to be confounded.

Treatment.—In the treatment of purpura, attention must first be paid to the removal of the cause, if this can be ascertained. Nutritious diet, and, above all, if the hemorrhage be extensive, rest in the horizontal position, are important. In purpura simplex, ergot, the preparations of iron, quinine, the mineral acids, together with frictions and cold baths, are beneficial. Purpura hemorrhagica calls for prompt and decided treatment. Perfect rest in the horizontal position, with the same medical treatment as in purpura simplex, is appropriate. Oleum erigeron in five to ten drop doses on sugar, every two to four hours, has been highly recommended. Magee Finney says that ergot and belladonna are to be given first, and bark, ammonia, and the mineral acids later. In severe cases the ergot may be given hypodermically (one grain of ergotine repeated in four hours was thus administered by Minich successfully). Electricity has been used by Shand where other remedies have failed. In ordinary cases, tincture of the chloride of iron, in doses of twenty to thirty drops thrice daily, alone or with digitalis and ergot, may be given. Turpentine and the acetate of lead, with opium, may also be given. Externally, sponging with vinegar, solution of tannin, alum, etc., are often employed. Ice applied locally, and ice-water enemata when there is hemorrhage from the bowels, may be employed with benefit.

Prognosis.—The prognosis of a case of purpura will depend much upon its nature and variety. That of purpura simplex or purpura rheumatica, exanthematica, or scorbutica, is in almost all cases eventually good, though the termination of the disease may long be delayed by successive relapses. On the other hand, infectious purpura almost always ends fatally. The prognosis of cachectic purpura varies with the cachexia, whether this is due to organic disease, to a curable affection, or to bad hygienic conditions. Those forms of purpura which occur in the course of other diseases, as the result of nervous

or mechanical causes, are in most cases mere episodes in the history of affections which they accompany. The febrile condition, when this exists, is an important element in the prognosis of purpura, rendering it more grave.

I will now proceed to report briefly, mostly from memory, three cases coming under my observation. The first case was one of Infectious Purpura seen by Drs. King, W. H. Evans, and S. K. Crawford in consultation, occurring in my practice several years ago in a middle aged married woman, who was attacked with severe rigors, followed by high fever and severe pains in joints, and great oppression and distress about the chest and on whom I noticed from my first visit large purpuric splotches all over the person, the rigors returned at frequent and irregular periods, and were attended with the most intense suffering. Temperature ran very high. Pulse countless, and small from the beginning. Patient grew rapidly worse with aggravation of the symptoms, and died on the fifth day. The treatment was altogether symptomatic.

Case second was a very malignant case of Purpura scorbutica, which I saw on the 25th of last March in consultation with Dr. Smith of Houstonia. Patient was a married woman, about 30 years, with her third child, aged six months at the breast, very fleshy and of healthy parent age. Had nurses sore mouth from the birth of the babe and about three months before my visit marked symptoms of anemia and scurvy developed. She gradually grew worse till the case became alarming; when I saw her I found the well marked purpuric splotches all over her person of different shapes, and colors, some bright purple and shaded down to pale yellow. Temperature 104°. Pulse 140, and feeble. Respiration hurried and laborious, marked symptoms of prostration. Gums so swollen as to completely hide the teeth from view, and constantly bleeding beside bleeding profusely from nose, also from eyes, bowels and bladder, was suffering from most violent rheumatic pains of the chest, and joints. Great dyspnoea. Joints much swollen, and very tender to the touch, excessive thirst, *nausia* and frequent vomiting with intense loathing of food, gums gangrenous and breath fearfully

offensive, constant diarrhœa. Urine high colored and scant. Patient sleepless, restless, despondent and hopeless, and in two days after my visit she died.

As to treatment I suggested Tr-Ferri-Chlor., in glycerine in very full doses and table spoonful doses of Cor-Solut-Chlor-Potass-alternately, and Permanganate of Potash as mouth wash.

Case third was one of Purpura Rheumatica. Was called to see Mr. D.—aged 30 on 16th April last, who had been sick about four days and found him suffering from severe rheumatic pains, which started at the base of both great toes, and extended to feet, ankles, knees, hips, elbows, wrists and even to tips of fingers. All joints more or less swollen and very tender to touch. Great pain through the chest and considerable Dyspnœa, and in fact he was so sore and stiff that he was about as immovable as a wooden man would be. He was covered from head to feet with the characteristic purpuric eruption. The splotches irregular in shape and ranging in size from that of a pins head to a silver dollar. Skin hot and dry, nausea and vomiting. No sleep. Temperature 105° Pulse 140 and weak and irregular. Some delirium—considerable nose bleed, and general symptoms so unfavorable that I was much alarmed about him and concluded that he would go the way of the others. I at once put him to full doses of Salicylate Sodium regularly, and capsule containing Antikaminia, Quinine, and Morph. to contro pain, also had joints wrapped in cloths wrung out of hot water. On 17th patient much more comfortable, had slept well during night and perspired freely. Could use arms and hands some, and be turned on side without much discomfort. Temperature reduced to 102 Pulse 120 but weaker, not so much thirst. A loathing of food, nose still bleeding, and he had passed considerable blood from the bladder. Continued treatment on the 18th. Patient not so well, had a restless and sleepless night. Joints still swollen and very sore. Temperature 102 Pulse 140, weak and irregular. Not so much hemorrhage. Thirst excessive. In addition to former treatment gave Fld-Ext-Colchicum and Tr-Digitalis. On 19th found patient a little more comfortable but not improved, had passed two

bloody stools during night, but no blood from bladder. Nose still oozing some, nausea and vomiting with indications still very unfavorable. On 20th patient somewhat improved. Not so much pain or soreness. Gums very sore and bleeding. No action from bowels. Urine clear of blood for the first time, and rather copious. Temperature 102 Pulse 116 and regular with more volume. Feeling a little more hopeful. I continue treatment. On 21st found patient feeling better. Had slept some during the night, swelling pain and stiffness subsiding, was able to turn himself in bed for the first time, splotches fading, no more hemorrhage, still loathing food. Temperature 101 Pulse 120, more strength and quite regular. Continued treatment. 22nd. Patient much improved. Had taken a little breakfast and could now use hands and arms enough to blow his own nose as he put it. Gums improving, healthy natural action from bowels. Temperature 100 Pulse 100. Urged the use of fresh milk and continued treatment. 23. Still improving in all respects. 24th. Much improved. Temperature normal for the first time. Discontinued all previous remedies and Prest-Tr-Ferri-Chlor-and Con-Solut-Chlor-Pot. Giving the iron in glycerine in full doses every four hours alternately with the Potash, On 24th found him rapidly improving and thought it safe to dismiss him.

He continued to improve steadily and to-day is well and at work.

Report of Three Interesting Surgical Cases, Brain Tumor, Fracture of the Patella and Epithelioma of the Lower Lip.*

By O. W. BRAYNER, M. D., Ph. D. of Camden,
N. J. Surgeon to the Cooper Hospital, Consulting surgeon to the Camden City Dispensary, Physician to the Camden Home for Friendless Children, etc.

Case 1, a male aged 37 years admitted to the Cooper Hospital suffering from Jacksonian epilepsy. He gave a history of having received a blow on the head

fifteen years previously and stated that the convulsions had been coming on for the past ten years, affecting principally the thumb and first three fingers of the right hand and a part of the muscles of the forearm. There was severe pain in the left side of the head and total loss of vision in both eyes. The latter began about two years ago, the outside half of the right eye first became blind then the inside of the left eye, afterwards there was total blindness.

The sense of smell had been diminishing for about one year, hearing was not good in the right ear but was very good in the left.

There was no history or evidence of any specific disease. This case was diagnosed as one of the tumor of the brain, situated in or on the left hemisphere, interfering with the centers which controlled the functions of the parts affected.

At the patients request and with an understanding that the chances for his being benefited were very slight, an operation was done on June 13th, 1896. A semilunar incision was made in the scalp over the fissure of rolando on the left side, and the flap thus formed, turned down laying bare the skull for an area of several square inches. After careful examination, I found a small snail like growth peeping out of an opening in the bone over the fissure of rolando. By means of the trephine and the rongeur forceps sufficient of the skull was removed to enable me to examine the condition of the structures beneath.

After the opening had been made the dura bulged up into the space, showing that there was much pressure within. The bone around the point where the vegetation had pierced the skull and become eburnated, the diploe was absent and it was with difficulty that the instruments were made to cut it. After an opening had been made through the membranes, this fact was disclosed viz., that the point of tissue which had burrowed its way through the bone was a part of a tumor, situated beneath, in and about, the fissure of rolando. This growth was about the size of a large walnut, cauliflower in shape, with its root or base extending deep into the brain. I carefully enucleated the mass with my fingers and scissors, washed out the cavity with warm distilled water, used a drain made of a

*Prepared to be read before the District Medical Society of the County of Camden, November 10th, 1896.

strip of iodiform gauze, closed the dura with a continuous cat-gut and the scalp with interrupted silk worm gut sutures. The opening left after removing the gauze was closed by bringing together the parts with the sutures which had been left untied at this place. The patient reacted fairly well after the operation.

At first there was, as we anticipated, total paralysis of the right arm and leg. After a few days, however, motion in the latter returned, but the upper extremity remained helpless; there was no return of the spasm.

The gauze was removed from the wound on the second day and the opening allowed to close. The patient left the hospital three weeks after the operation. I have recently heard from him, through his wife, and am informed that his condition remains unimproved. It is my belief that there are other growths deeper in the brain which are responsible for the loss of sight, etc.

Case 2, a male aged fifty years, was admitted to the hospital June 5th, 1896 suffering from an injury to the right knee. There was a history of falling from a wagon and striking his limb. Examination showed that there was a complete, transverse fracture of the patella, with separation of the fragments. To the extent of several inches; the limb was so swollen that it was useless to attempt holding the fragments in place by means of splints, in fact Agnew's was tried and found to be a failure.

The injury was treated by rest and the application of lead water and laudanum until June 7th at which time I decided to operate.

A free incision was made extending from condyle to condyle, semilunar in shape the convex surface downwards, the flap thus formed was turned upwards, opening up the joint and exposing the fractured patella; several clots, pieces of bones and cartilage were found in the joint and removed. The parts were thoroughly cleansed with a 1-10000 solution of bichloride, and the two large fragments were brought together and fastened by means of kangaroo tendon sutures. The capsule was closed with a continuous kangaroo tendon suture. The skin flap was fastened in place with interrupted silk worm gut sutures. The limb was put in a plaster cast extending

from the heel to the upper third of the thigh, and laid upon an incline plane, elevating the foot. There were no unfavorable symptoms and on June 15th the wound was dressed and the sutures removed, union of the external wound was perfect. On June 19th the patient was allowed to be out of bed and on July the 14th the cast was removed and union in the patella was found to be perfect, with good motion in the joint.

Case 3, was a male aged 74 years who came to the hospital April 16th, 1896, and because of the loathsome condition present, operation was done at once. There was a large epithelioma of the lower lip involving the tissues to the border of the chin, being somewhat more extensive on the right than on the left side, but extending from one corner of the mouth to the other. There was a mass the size of a hen egg extending from the lip, foul smelling and obnoxious to sight; the teeth and gums were exposed and there was dribbling of saliva. This disease was of four years standing. I removed the lower lip to the border of the chin, curetted away all suspicious looking tissues, cleansed the parts well with a boric acid solution, and proceeded to repair the deficiency as follows. I took a flap of tissue including the skin and fascia, from the chin and under surface of the lower jaw, sufficiently large to make up for the lost lip, I raised this up and sutured it fast and thereby made a new lip; the place from whence the flap was taken was closed by loosening the skin from the tissue beneath, around the wound, and closing the opening by means of interrupted silk worm gut sutures, like sutures were used to hold the new tip in place. The wound was cleansed every hour with a boric acid solution.

Union was perfect with the exception of a small space at the right corner of mouth where a small portion of the tissue sloughed; this deficiency was repaired on April 28th, 1896, by making a V shaped incision removing all dead tissue and bringing the parts together with steel pins and figure of eight sutures. Union was perfect and the patient was discharged on May 6th, 1896, feeling well and very grateful for the change in his condition. The under lip was perfect in appearance and function was good.

At this writing nearly six months later

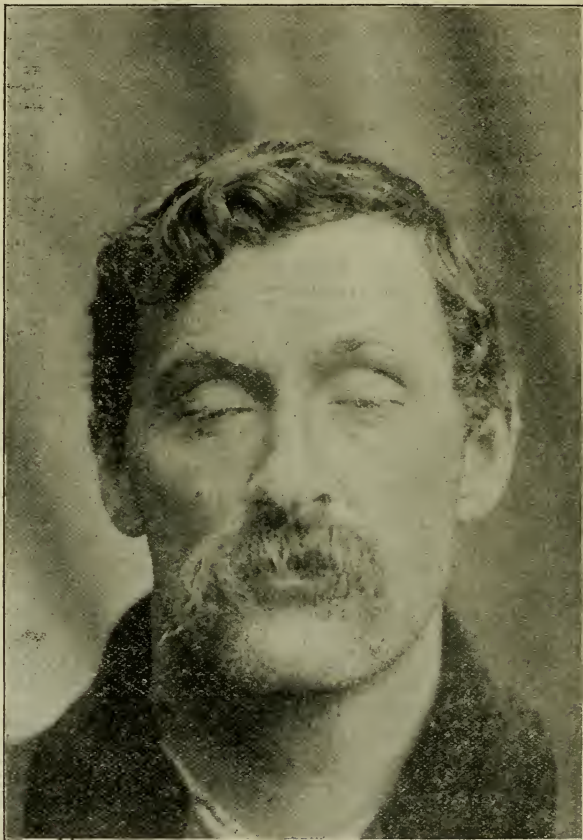
there has been no return of the diseased condition.

Ophthalmoplegia External vel Progressive.

By Dr. J. J. KYLE, Marion, Ind.

"The lesion of this disease is located in a group of nuclei lying beneath the aqueduct of sylvius in the floor of the

fourth ventricle," where 3d, 4th, 6th and 7th nerves take their origin. The disease may also extend to the nuclei of the optic nerve which takes its origin by two roots, internal and external. The internal takes its origin from the anterior Tubercula Quadrigemina, and passes through the Corpora Geniculata to the optic chiasm. The external roots arise from posterior part of optic thalami, pass to the external corpora geniculata, receive fibres and thence pass to the chiasm.



The accompanying illustration represents very graphically the results of this disease after a progress of one year.

Patient, aged 34, farmer by occupation, family history good, no history of syphilis, reflexes in other parts of body normal, urine normal. The patient's features are

painful and expressionless. For six months the disease was progressive in character. When he consulted us, four months ago, we found complete paralysis of the levator muscle, and perfect rigidity of the eye balls. The constant effort to open the eye-lids has caused a deep

marking of the forehead, the iris reflex was very sluggish. When the lids are elevated, patient reads $\frac{6}{9}$, reads Jaeger No. 2 with difficulty, patient complained of constant pain at base of occiput, and insomnia. On ophthalmoscopic examination we find a marked atrophic degeneration of both optic nerves.

PROGNOSIS.

In this case as in all others, when the disease is fully developed, no satisfactory change from any treatment whatsoever, is to be expected. In many cases if seen during the conception of the trouble, if any and all predisposing causes are removed, which will be hereafter enumerated, a favorable prognosis can be given, though a complete recovery of the diseased nerves is quite improbable.

TREATMENT.

In the above case prescribe hypodermic injection of strychnine sulphate, $\frac{3}{10}$ gr. daily, with elixir three chlorides with Kali Iodide. This treatment was continued for two months, the only manifest change was in the complete removal of pain in occiput and the cure of the insomnia. Patient was instructed to continue the use of the three chlorides and iodide potassium.

The etiology is yet obscure. It is understood to be a disease of the nuclei. Dr. Ayers, in the March, 1896, *Journal of Ophthalmology*, gives a very interesting resume of congenital cases. He mentions the first case which attracted attention as occurring in clinic of Prof. von Craefe, in Berlin, in 1856, in a man forty years of age. The symptoms were supposed to be due to a tumor at base of brain. The patient's vision was normal. Quoting further from Dr. Ayers' paper, "Gowers (diseases of the nervous system) says, that Ophthalmoplegia External is sometimes congenital and even hereditary, and he states that Hirschberg, 1886, has described the case of a man, with a congenital double ptosis and paralysis of the ocular muscles, where mother presented a similar condition, while his own son had congenital ptosis and paralysis of the superior recti."

Among the predisposing causes of this disease may be mentioned Syphilis, Tabes, Diabetes and disseminated Sclerosis, Hemorrhages, Embolus, Thrombus and injuries.

In the above case, the only cause that can be advanced, is heat exhaustion. The first symptoms manifested themselves a short time after heat prostration caused by exposure to the rear end of a threshing machine. At this time patient complained of great pain in head and eyes, and general exhaustion, which passed away in a great degree within twenty-four hours, then the first symptoms, slight twitching of the lids began, which continued with the other symptoms with the above results.

"Concerning Tuberculosis."

By J. C. MONTGOMERY, M. D., Charlotte, N. C.

The subject of tuberculosis in its various aspects is, at the present time, the most important one with which the medical profession has to deal. At least 15 per cent. of all deaths in the civilized world are due to pulmonary tuberculosis. In its protean forms it claims the attention of the physician, the surgeon and the specialist alike, and the large mortality from this disease should be a sufficient stimulus for unflagging efforts on the part of every member of the medical profession to contribute his mite in the efforts to advance the prophylaxis and therapeutics of this formidable enemy to mankind.

Tuberculosis has been known and described for many centuries. Several hundred years before Christ, Hippocrates, giving a description of caseous abscesses so characteristic of tuberculosis, called them tubercles. Since that early age, it has been known under a variety of names and at different periods has been more or less confounded with other infectious diseases. As early as the middle ages, it was considered contagious, and the flesh of animals affected was abandoned as an article of food, although it was not clearly differentiated from syphilis, and later was confounded with glanders; but more careful investigation showed that while these diseases did resemble one each other somewhat in their insidious character and gross post mortem appearances yet they were each distinct from the other. Then it was that the theory of heredity began to be advocated. This finally became generally accepted by the pro-

fession, and from this time on the idea of contagion was practically abandoned by medical men until Villermé's telling experiments in 1865. The common people of Southern Europe, who suffered from the immigration of consumptives to their more healthful climate, and many veterinarians who witnessed its ravages among domesticated animals, still held to the belief in its contagious character, and a few, more fearless, boldly proclaimed it from time to time, with little effect, however, upon the minds of medical men, until the researches of Villermé actually drove them to investigate the matter, either to prove or refute the truth of his assertions, though with more willingness to do the latter. Several entered zealously upon the task, and as the investigation proceeded, many more constantly added to the rank and file, and most careful and painstaking experiments were performed, resulting finally, in 1882, in the discovery, by Dr. Robert Koch, of the bacillus tuberculosis, and the establishment of its casual relation to tuberculosis.

It is not my purpose to review the extensive literature on tuberculosis, or to recount the many obsolete theories regarding its nature or cause, but briefly to call attention to a few important facts in regard to its treatment.

The treatment of any disease is always simplified by a knowledge of the conditions to be met. There is no specific treatment in this disease other than that its etiology should be met with a rational treatment. Since anæmia and malnutrition are the doors through which the tubercular bacilli get into the system, let us strive to build up nutrition by every possible means, and endeavor to raise the anæmic to a higher plane of health. There may be a dyspepsia to overcome. Anorexia, indigestion, an irregularity of the skin, of the kidneys and of the bowels are frequent concomitants, and must be met with a treatment to appease and overcome. The whole system must be as nearly regulated as is possible.

I have never received any beneficial effects from the administration of cough mixtures, and have always made it a rule to avoid them. Creosote, I have also found of very little value, except where dyspeptic and intestinal disturbances are found to exist.

An abundant and rich supply of blood in the system is a prophylactic to the infection of tubercle, as well as it is to any other treatment. Then our treatment should consist in such measures as will add to the purification and rich quality of the blood in order that nutrition of the tissues throughout the system may be promoted and protected. For this purpose a good, generous, rich, clean and well prepared food, from which blood can be extracted, stands at the head of all treatment. Fresh milk, from a healthy cow, and good bread, is an excellent diet in tubercular affections.

The one drug on which we mostly rely, and which stands at the head of any other, is Cod Liver Oil, yet, it is usually so disgusting to the stomach, that very few can take it, but combined with malt and other tonics, such as the iodide of iron, or some good, palatable elixir, can be frequently borne by the stomach, and answers a good purpose. All tonic remedies are indicated, and we should select those which will be best borne by the individual patient, and which will be most apt to promote appetite and digestion, and add to the quality of the blood. There is an excellent preparation of Cod Liver Oil, known as Hagee's Compound Cordial of Cod Liver Oil, which I have recently been prescribing with beneficial effects and very satisfactory results. It is a most admirable and available preparation. It is the happy combination of Cod Liver Oil and Hypophosphites of Lime and Soda, with the tonic properties of a rich light wine. Alcohol in large quantities does great harm in this disease, but light and careful stimulants greatly aids the organs of digestion, and assists the absorption of fats and other food substances taken into the stomach.

In Hagee's Compound Cordial there is just sufficient alcohol to produce the desired stimulation.

Good hygienic laws should be observed as the only mile post pointing to health. Cleanliness of person and place of abode, a cheerful exercise of body and mind in bounds not prostrating, being clothed to best protect the system from the changes of temperature, in the climate in which the patient lives, taking plenty of sunlight and fresh air during the day, and sleeping in a well ventilated room at night, all are good laws to observe, and

need to be pointed out and advised by the physician.

The New Local Anæsthetic, Eucaine Hydrochlorate.

By HUGO ENGEL, A. M., M. D.

Fellow of the American Academy of Medicine,
late Professor of Nervous Diseases and
Clinical Medicine, &c., &c.

The subcutaneous employment of cocaine, especially when used in dentistry for the purpose of local anæsthesia, is often productive of general malaise, pain in the larger joints, a peculiar restlessness and nervousness, and various other morbid symptoms. Patients, having once suffered from these sequelæ, almost invariably repeat the experience, when again subjected to the influence of this alkaloid. The report of such persons, that the substitution of Eucaine for cocaine, while insuring the same degree of analgesia, had resulted in the prevention of the former annoying consequences, first drew my attention to the new drug. Further observations confirmed the correctness of these assertions and of the statements, made by other investigators, that Eucaine Hydrochlorate, though fully as effectual as cocaine in the production of local anæsthesia, yet is free from the obnoxious and poisonous phenomena, which follow so frequently the hypodermic application of the latter remedy.

It may be well to premise, that there are two salts, the *hydrochlorate* and the *hydrochloride*. The last possesses some irritating properties, which make its employment undesirable, especially in ophthalmology, while the hydrochlorate is free from this objection. The following remarks refer only to the latter alkaloid.

While experimenting in the laboratory of Prof. Liebreich, Dr. Vinci* discovered the anæsthetic properties of eucaine hydrochlorate. The new compound differs from cocaine in the substitution of a methyl group for a hydrogen atom formed by the action of ammonia upon acetone. Because of the length of its clinical appellation: methyl-benzoyl-tetra methyl-gamma-oxypiperidine-carbonic-acid me-

thyl-ester—somewhat unhandy in prescriptions—the shorter and more euphonious name of eucaine has been adopted. The hydrochlorate crystallizes from a watery solution in shiny scales with the formula of $C_{19}H_{27}NO_4 \cdot HCl \cdot 2H_2O$, and is soluble in water in the proportion of about 29 grains to the fluid ounce, i. e., six per cent.

Solutions of from 1 to 10 per cent. may be kept an indefinite time; they are not liable to decomposition, and the addition of an antiseptic is not necessary. The solutions are easily sterilized, however, by boiling, which may be done again and again, without the least deterioration of quality†.

Eucaine is less toxic than cocaine and has no effect upon the pupil or upon accommodation; it causes hyperæmia, while cocaine induces anæmia‡; the anæsthetic effect of both drugs is exactly alike; the desquamation of the superficial epithelium observed, when cocaine is applied to the cornea, and, because of its favoring the entrance of germs, responsible for the septic inflammation frequently following the employment of cocaine in the eye, does not occur after eucaine||, and as solutions of eucaine do not need the addition of carbolic acid, the deleterious effect of the latter, happening as it does in many cases, is also avoided.

Solutions of greater strength than ten per cent., are apt to separate some of the eucaine after a while, and are not advisable. Dentist Kiesel, of Berlin, considers 12 syringefuls of a 15 per cent. solution to constitute the *maximum* dose, a Pravaz syringe, such as he employs, holding about 15 minims. Dentist L. Wolff, chief of the Dental Clinic in Berlin, who made use of eucaine in 128 extractions of teeth, some of which were very complicated and tedious, and who is greatly pleased with the results obtained, administers much smaller doses. For the purpose mentioned he declares 3 to 5 minims of a 10 per cent. solution to be sufficient, if injected into every root.

The new local anæsthetic probably has thus far been used in our country more generally by dentists than by physicians.

*Robert Bradenell Carter, F. R. C. S., London Lancet, July 11th, 1896.

†Vinci and Carter, loc. cit.

||Berier, Revue de Therap, June 15th, 1896.

Dr. John W. Robb, of Philadelphia, who employed it to a considerable extent in his dental practice, gives the following directions, which coincide with those recommended by other observers:

Dissolve 15 grains of eucaine hydrochlorate in $2\frac{1}{2}$ fl. drachms of distilled water (5 per cent. solution) and boil the solution, which should be perfectly clear and be preserved in glass stoppered bottles. From 3 to 5 minims of this fluid will answer for one root; the doctor never found more than 80 minims needed for any operation on the mouth; at least he himself would not overstep that limit.

Before injecting, disinfect the mucous membrane thoroughly with pyrozone, or a half to 1 per cent. trikresol solution, and, to be sure, the instrument employed must be aseptic.

The needle should be inserted, if possible, between the alveolar process and the root, close to the edge of the gum, and under no circumstances at the junction of the alveolar and buccal mucous membranes. The quantity to be injected is sufficient, when the mucosa near the puncture is whitened and slightly elevated. Both lingual and buccal injections should be made.

The anæsthesia ensues within about one minute after the injection. If care is used, there will be no swelling in the hard gum, though should it occur, a slight lancing would relieve it. The œdema, if developing, is harmless and painless, and disappears within one to two days.

Careful toxicological experiments have fully demonstrated the fact, that eucaine is decidedly less poisonous than cocaine. From $\frac{1}{3}$ to $\frac{1}{2}$ gr. eucaine to 2 lbs. weight of animal gave rise to convulsions, and about 2 grains of the drug to the amount mentioned of corporal weight caused paralysis. But doses of cocaine, which produced death, of eucaine resulted in recovery. The action on the circulation also differs in the two; while cocaine accelerates, eucaine lowers the pulse, and palsy of the respiratory centres occurs, while the heart continues to beat for some time after. Still we must not look upon eucaine as innocuous; it is no harmless drug, and caution is necessary in its use*. But we need not fear such acci-

dents, as have happened after cocaine, when employing the same doses of eucaine. From $\frac{1}{2}$ to 1 per cent. solutions of eucaine have been used in the urethra for analgesic purposes with very good effect and without any untoward symptoms.

The following two cases from my own practice will show the usefulness of the new drug in a common complaint. Men frequently consult physicians because of premature discharge during coitus. Dr. F. R. Sturgis, in his excellent paper on the subject, is correct in ascribing this annoying symptom in many cases to affection of the prostate, most generally due to onanism earlier in life. But there are undoubtedly cases, in which no such lesion exists, but in which we have simply a hyperæsthesia of the deeper portion of the urethra, and in not a few individuals the whole canal is remarkably sensitive. To shorten the reports I may at once state, that both cases, to be referred to immediately, complained of the same annoyance: premature ejection, and that in both no pathological change could be discovered, except this increased sensitiveness.

J. F., æt 26, July 5, 1896. On introducing a No. 20 metallic bougie, much too small for that urethra, the latter was found in such a high state of hyperæsthesia, that notwithstanding the utmost tenderness observed in the operation, I had to desist, because of the excruciating pain produced. I then injected about 20 drops of a 4 per cent solution of eucaine, with the result of greatly reducing the sensitiveness. At the next visit, three days later, the patient reported, that, the day following the introduction of the instrument, his trouble appeared decidedly lessened. I then confined myself to the injections, which for a week were first made daily, then for two weeks more every second day, and finally, for a month twice a week, when the patient pronounced himself cured, although the urethra still showed more than normal sensitiveness along the whole canal, whenever I employed the bougie without the protecting eucaine.

Chas. W. M., æt 39, August 16, 1896. A No. 26 bougie passed easily, until it

*Vinci, loc. cit.

*Prof. Liebreich in the sessions of the "Hufeland-Gesellschaft," Berlin, Aug. 18th, 1896.

reached the prostatic portion of the urethra, when the operation became exquisitely painful to the patient. Profiting by my experience in the first case I confined myself to the application of 4-5 drops of a 6 per cent. solution of eucaïne to the sensitive part of the urethra, an operation which I performed by introducing a rubber catheter to the hyperæsthetic neck of the bladder, then injecting the solution through the instrument, while slowly withdrawing the latter about an inch, so as to reach the whole of the portion of the canal involved. For convenience's sake I later employed 12 to 15 drops of a 2 per cent. solution of the same drug, even that quantity being difficult of application in that manner, as a certain amount of fluid is necessary, if it is to pass successfully along the tube. Afterwards I made use of a metal instrument. Great improvement also occurred in this case, after a treatment of two months, when the patient had to return to his home in the interior of our State.

As eucaïne to all intents and purposes completely takes the place of cocaine, there is no more to say, except that its field of usefulness is exactly the same, as that of the latter drug, but enlarged by its decidedly less poisonous character, which enables us to employ it, when the disturbing sequelæ and the other properties mentioned above of cocaine forbid the application of that remedy. I may add, however, that in one class of cases eucaïne has proved specially successful in my hands, viz.: in cases of irritative cough, more so of young women. No morbid change can be discovered, even irritation due to reflex must be excluded in the absence of a causing element. The application of a few drops of a 6 per cent. solution of eucaïne to the soft palate, uvula and epiglottis will as surely remedy the complaint, as, when done high up in the nose to the Schneiderian mucous membrane, it will cure the irritative nausea and vomiting in hysteria, and even the emesis in pregnancy, at least in the majority of cases.

Finally I may state, that as yet I have not seen a eucaïne habit develop, a danger always threatening, when cocaine is employed for any length of time. Whether this does not set in, because of my care in gradually withdrawing the drug and because of my always trying to retain the

patient, until a sufficient time has elapsed after the withdrawal, to prevent the growth of such a habit, or whether this risk is less with eucaïne, I have not been able to decide.

Eucaïne hydrochlorate has come to stay and will in the end supplant cocaine altogether, except in cases, in which the immediate contraction of the blood vessels or the dilatation of the pupil should be specially desirable. Of this I am the more convinced, as the idea has been exploded, that cocaine is a preserver of vital energy, and that individuals under its influence may continue for days to perform physical labor, without the necessity of food. For Anrep† found, that death from starvation sets in about the same day, whether cocaine is administered or not, and that the daily loss of bodily weight under such circumstances also is uninfluenced by that drug. These facts deprive cocaine of its last advantage, as compared with eucaïne.

Philadelphia, 2016 Arch St.

The Brotherhood of the Medical Profession.

*An Address before the Binghamton, (N. Y.),
Academy of Medicine, Oct. 20, 1896.*

By JOHN M. FARRINGTON, M. D.

We, who are assembled here, represent more or less the different stages or grades of experience which fall to the lot of the practicing physician and surgeon, and have each of us in our turn felt, or will feel, the same class of emotions that from time to time have animated, or will hereafter animate, the spirits or test the sensibilities from the time when we commenced the study of medicine down to the last hour when we shall conclude its practice.

At the beginning, as soon as we had reached a decision to make the medical profession our choice for our life work, we were stirred with aspirations to secure a thorough preparation by a liberal medical education, and from that hour all other matters were held subject to that

†Handbuch der Arzneimittellehre von H. Nothnagel und M. J. Rossbach, 7th edition, page 707, article: Cocaine. Berlin, 1894.

ennobling objective point of our youth or early manhood, an honorable position in the medical profession.

Next came the struggle which many of us were called upon to make to secure the much coveted education; experiences that we never can forget.

Those years of the best portion of our lives were given to study early and late in our private rooms: to several hours for five days of the week upon college benches listening to lectures from our honored professors; to spending hour after hour for many weeks working in the chemical laboratory, and night after night for wearisome months in the charnel house of the dissecting room; to following our teachers through the wards of the hospitals; to attendance upon clinics and to witnessing operations in the amphitheatres: to being in our places in the various quiz classes—all these experiences, and many more, rush vividly to memory's view as we halt a moment to retrospect that interesting period of our lives.

At last, having successfully passed our final examination and received the much coveted parchment, we found within our breasts new aspirations that led us on to new trials, and new victories, and although the full measure of our expectation or ambition may not have been realized, we were made wiser and stronger by the contest. Yes, whatever may have been the position to which we had aspired, if reached, it brought to us great satisfaction, but if not, our standard of medical knowledge was planted higher by the effort.

Then, after serving it may have been on some hospital staff, on shipboard, or in the army service, we chose a location as our field for general or special practice.

Then came to us new duties, new responsibilities and new trials; which tested our faith, not in medicine alone, but also in mankind, and amid all the difficulties and achievements of those early years our relations to our medical brethren, and our experience with them, constitute an important chapter in each of our histories and leaves upon our memories much of pleasure, and alas, also, much of pain.

Each of us I trust entered the arena of medical practice animated by a noble and generous spirit toward reputable fellow practitioners everywhere, and especially toward those who were our neighbors.

We also felt a sort of reverence for our fathers in medicine, and those who had been our teachers, the authors of our textbooks, the prominent members of our profession the world over, those who had borne the burden and heat of former days and who by their patient investigations, scientific research and skillful pioneer operations had justly risen to eminence.

One of the most grateful memories of my life, is the remembrance of the cordial hand shake and generous greeting which I received in London and Paris in 1857, just after my graduation in New York, from the most distinguished physicians and surgeons, not only of that time, but of any period of the world's history.

Not only to have seen, but to have been personally noticed and greeted by Erasmus Wilson, Erichsen and Ferguson of London, and Jobert, Ricord, Nelaton, Malgaige, Civiale, Caseaux, Trousseau and Velpeau of Paris, more than filled the measure of my youthful ambition, and I treasure among my choicest relics, the hand-writing of some of those savants upon their cards inviting me to witness operations by them in the hospitals of those cities.

We entered upon the practice of our profession realizing that it was a self-sacrificing and philanthropic vocation, while at the same time we had just reason to expect that those physicians who faithfully discharged the duties placed upon them would be cheered, sustained and encouraged by those to whom they rendered skillful and efficient service, and that the practitioner would reap financial success, or at least secure a comfortable support, during the years of active practice, and that he would be enabled to accumulate sufficient means to care for him in the decline of life; that he would at the same time attain and maintain a social status in the community compatible with the dignity and importance of his profession.

Each of us, I am led to believe, when we engaged in the practice of medicine, felt a large degree of assurance that all of the above named results would follow and attend us, and that we should find among our professional neighbors, kindred spirits, brothers indeed.

O, how much does a young man, just commencing practice, feel the need of true medical brethren to support him

when others of the laity fear to trust him, to speak a good word for him when occasion offers, to defend his reputation when assailed by slanderous tongues, and in many other ways to sustain him as only a brother practitioner may do!

But alas, how very different has been the experience of most of us! Envy, jealousy and selfishness are qualities to be found in human hearts, and those of physicians, unfortunately in this respect, are no exception to that of mankind in general.

Some of the bitterest experiences of a young physician's life are felt, when a brother practitioner, who by a word could have protected him from a baseless imputation, has not only failed to speak that word, but by a strained reticence, has aided in fixing an undeserved stigma upon the medical reputation of the young doctor, when duty demanded that he should defend, and protect it.

I esteem and respect every member of the medical profession who is honorably discharging his duty to his patrons and to his brother physicians, and yet I am often made sad in noting how great is the want of true brotherhood among the members of our fraternity.

Should every physician observe the golden rule in his conduct toward his medical neighbors and associates, how much happier and better would be the outcome to all concerned. Instead of striving to rise upon the downfall of a professional neighbor, each member of our profession would endeavor to advance by his own merit, in the faithful discharge of his own duty, as an honorable and generous competitor for the patronage of the members of the community in which others are seeking support by the same audable efforts.

I know that the millenium has not yet dawned upon us, but let us so far as we may pave the way for its appearance. Let us as members of a liberal and enlightened profession, frown down this mean, narrow, bigoted conceit and egotism which can see no merit or skill in any one but self, and let us take into our hearts those broad, manly, generous, noble and elevated sentiments which recognize a brother toiler with us in the same field of labor, who is inspired by the same hopes, subject to the same trials, and looking forward for the same rewards.

As far as we conscientiously can, then let us throw the mantle of charity over the mistakes and shortcomings of another, and let us assist him as far as we may, to overcome his weaknesses, and should he have glaring faults, let us by example, at least, strive to lead him to overcome them.

I entered our profession with an exalted idea of professional courtesy. I tried in all matters to conduct myself in my relation to other physicians as I in turn would desire them to act toward me. Perhaps I went to the extreme, in obeying the letter of the code of medical ethics, and yet I suffered for years, more possibly than any of you may have done, from the unkind, to use no harsher term, treatment of those in the profession whom I had always treated as brethren. It did at times appear to me as though the old adage, "honesty is the best policy," should be reversed.

But, after long years of patient waiting I learned that "peace hath her victories no less than war," and I lived long enough in that community to see my course vindicated: that if a man be true, he will bring all men to respect him, for the very men who sought in various ways to undermine and injure me, at last became my warmest professional friends; and later, when each of them in turn, was attacked by a grave and fatal disease, I was chosen by each as his medical attendant, and it was my sad duty to minister unto them until the death angel came.

I have the sincere friendship, as far as I know, of all of my medical acquaintances whose friendship is desirable, and I am happy in the evidence and consciousness of that respect and esteem, and realize in no small degree the truth of Scripture: "Behold how good and how pleasant it is for brethren to dwell in unity."

To the younger members of the profession before me, let me say: Do not be discouraged or appalled by obstacles or embarrassments however formidable they may appear; live down the voice of slander; make a reputation for fair dealing; do not seek to rise by traducing your professional neighbor, but rise by the faithful performance of duty, and you will ultimately succeed, whoever may oppose you. Beware, and do not be allured by the voice of flattery, nor by the greed of gain to swerve from the path of rectitude and professional honor. Remember

"One self-approving hour, whole years outweigh,
Of stupid starers and of loud huzzas,
And more true joy Camillus exiled feels,
Than Cæsar with a Senate at his heels."

To you, my older brethren in the medical ranks, who have passed successfully so many milestones in your professional pilgrimage, and have securely established yourselves in the esteem and confidence of your patrons and the members of our fraternity, permit me to urge you to cherish still more strongly your love for your associates; and let us all unite to form a true brotherhood whose bonds shall lead us to take a deeper interest in each others welfare and happiness.

Let us be firmly bound together as a wall of sure support and protection to each other, and when quackery vaunts herself in stolen plumage let us unitedly rise to strip her of her disguise, so that shame and dishonor, instead of emolument, shall be awarded her by the public, and when the avarice and ingratitude of some patron shall attempt to rob us of just remuneration for professional service, let us not alone for personal friendship but also for the honor and dignity of our profession, rally on the side of justice; and lastly when afflictions fall upon the home or death invades the circle of one of our number, let us promptly show our fraternal sympathy and such aid as hearts bound together by a sacred bond of fellowship shall designate.

We scarcely need a code of ethics; our own conscience should be to us an intelligent guide to the path of duty, and although we may be unable to esteem a neighboring physician who by his conduct may have forfeited all claims to our respect, nevertheless let us show him by our course of action that we do not stoop to retaliation or revenge, but continue to treat him honorably in all respects.

A few months ago I read a paper before our County Society on the "Longevity of Physicians" (Journal of the American Medical Association of May 2nd, 1896.) in which it was conclusively shown by statistics, that the average age of the members of our profession is materially lower than that of persons engaged in most of the other vocations of life.

We have noticed in the necrologic records that have appeared of late in our medical journals that many physicians

die comparatively young, and we are very frequently reminded that we are not destined to attain great age; that the wear and tear both mental and physical that our practice demands are of such a nature that we feel the truth in our own bodies and realize that many of our number are prematurely growing old; that the youthful enthusiasm of former years is passing away from us, that we are unable to endure what we once could with impunity, and that our aspirations of bygone years have been greatly modified by the experience of the past and our status at present.

Does it not become us then, to do all that we can to make the best of this life to others as well as to ourselves while this fleeting period of our earthly probation is so rapidly passing away? Do we not need the cordial sympathy, the unwavering friendship, the sterling support, of all our medical brethren, who are worthy to bear the name, and shall we not henceforth strive more earnestly to cultivate fraternal affection which in times past we have too much neglected.

And now, in conclusion, assuming that you all agree with me in reference to the desirability of strengthening the Brotherhood of the Medical Profession, the next enquiry is, How shall this be brought about? The solution of this question I shall leave to your individual and collective judgments, with the confident assurance that your own hearts and consciences will prompt you to a ready answer and to practical methods.

Intestinal Movements. (Motus Peristalticus).

By BYRON ROBINSON, B. S., M. D., Professor of Gynecology in Chicago Post Graduate.

In experiments on various animals and by clinical observation on man we may notice various kinds of bowel movements. For the purpose of making the subject more intelligible we may note that the bowell wall is composed of an outer longitudinal muscular layer and of an inner circular, muscular layer. The bowel is lined by a mucous membrane and covered by a serous or peritoneal membrane. The arterial supply carries from the coeliac axis to supply the stomach (gastric artery)

from the superior mesenteric artery to supply the small intestines, the ascending colon and transverse colon, from the inferior mesenterics to supply the descending colon, sigmoid and rectum—in all three segments supplied by three arteries. The nerve supply to the intestines is from three sources:

1. From the cranial nerve (the pneumogastric).

2. The spinal nerves, especially those entering at the lower and upper bowel segment.

3. The sympathetic system.

The nerve supply of the bowel is a mixed supply of cerebro-spinal and sympathetic. In the sympathetic nerve supply of the bowel we must name some four sources, viz.:

(a). The Auerbach plexus, situated between the circular and longitudinal muscular layers of the bowel wall. It is a nerve plexus supplying muscles.

(b). The Billroth-Meissner's plexus situated under the mucosa. It is a nerve plexus supplying glandular structure and as to do with secretion.

(c). The abdominal brain (the solar plexus) situated around the origin of the pelvic axis and the superior mesenteric artery.

(d). The lateral chain of sympathetic ganglia located along each side of the vertebral column. From this chain of ganglia arise the great splanchnic nerves (or 4). With a mixed nerve supply we must designate the character of the movement by the nerve which preponderates. The characteristic movements of the bowel are those of a rhythm, rising slowly to a maximum (spasm) and sinking slowly to minimum (rest).

The rhythmic, periodic movement belongs to the sympathetic nerve. So that wherever the initiation or prohibition of motion may reside for the bowel wall it is dominated by the sympathetic nerve to all other abdominal viscera. With this mixed nerve supply variously localized, we may turn to the physiologic movements of the bowel.

1. The peculiar peristaltic movements which consists of a contraction and dilatation of the bowel lumen. The motion is toward the anus and the contents move the same direction. The most typical animal which I have examined to study the bowel peristalsis is the rabbit. In the

rabbit the contraction and dilatation of the bowel wall is very rapid, traveling a foot in a few seconds. Of course this rapid travelling cannot force the feces with it. The analward wave is transmitted from one segment of the bowel to the other in rapid succession. But with the abdomen open and the bowel struck or pinched or irritated we must think of very successive physiologic action. The peristalsis borders on pathologic conditions. In fact one can really see that the bowels move in a wild, irregular and disordered confusion. By pinching the bowel wall with the finger and thumb, or forceps, a circular constriction will arise which resembles a pale white ring almost closing the bowel lumen, and it persists awhile. This analward alternate contraction and dilatation of the bowel wall is a physiologic process of the bowel and doubtless is not accompanied by pain unless there be a diseased segment, when pain may arise. The peristalsis of the bowel is perhaps limited to a bowel with contents, i. e., it is contact, or in other words, mechanical irritation that produces physiologic peristalsis. In laparotomy, if one will observe, the empty bowel is nearly always still unless irritated by manipulation. If one will watch the bowel waves of peristalsis it will be apparent that the peristaltic waves are limited to 3 to 24 inches. A peristaltic wave will start and stop within a localized space. In the dog the peristaltic wave is neither so rapid as in the rabbit in its travel, nor does it seem to travel over such a long distance. The intensity of peristaltic waves is the most active toward the upper end of the jejunum when the muscular wall, blood and nerve supply is large. The bile and pancreatic duct pour their contents into the upper end of the bowel and thus enhance the peristaltic waves to force the contents downward. For secretion or any bowel contents is what induces peristalsis.

2. Another form of bowel movement may be called the pendulum movement. This is a contraction and elongation of the longitudinal muscular layer which does not propell the contents analward. The lumen of the gut remains the same. This pendulum movement of the bowel is localized and limited to short stretches of intestine.

3. A third kind bowel motion is

described by Professor Nathnagel as a roll motion. Though recognizing Dr. Nathnagel's keen observing powers, I cannot see anything in the roll motion of the bowel except an excessive physiologic or better pathologic process. It is in my opinion only a wild or stormy peristalsis. When, for example, the blood contents, gas or fluid, go onward by spells or jerks. The roll motion doubtless includes those peculiar gurglings which every individual now and then experiences. And though this form of bowel motion is not accompanied by pain yet it seems to border on the pathologic lines. Of course, almost all bowel motion of any distinct type belongs to the small intestines. Perhaps one can scarcely ever observe the large bowel motion through the abdominal wall if it be in a physiologic state. Perhaps the roll motion of the bowel described by Nathnagel is due to an irregular action of the nerves supplying the movements as Auerbach's plexus may become disordered. Formerly I thought that the large bowel did not share but a very small part in the excessive activity of motion, but recently I found a two inch "invagination of death" in the ascending colon of an adult; so that the colon engages in the wild, disordered motion of death when the cerebrospinal system has lost control forever of the bowel motion.

Peristalsis of the small intestines does not consist of waves starting at the duodenum and entering Barhin's valve, but the small intestinal peristalsis consists of local waves which start and cease within perhaps 6 inches to 2 feet. One may recognize peristaltic waves in the same animal 2 to 3 or 4 feet apart, each going through its wave. Now it appears that bowel contents are the initiation of bowel peristalsis, and if one observes a full bowel quiet it does not necessarily overthrow the idea that bowel contents alone initiate bowel peristalsis. Empty intestines are still unless excessively stimulated. We must look for the primary anatomical point of motive force of the bowel muscles in Auerbach's plexus. Among the very unsatisfactory experimental results, or better, perhaps, their interpretation are those of attempting to find out the location of a nervous center for bowel movement. Pflueger discovered that the splachnics when stimulated the

bowel motion is prohibited, the bowels become pale and the blood vessels become narrowed (anæmic), but severing the splachnics induces increased bowel peristalsis, the bowels become more filled with blood and congestion occurs. Some assert one thing and some assert another, in regard to the influence of the vagus over the intestinal motion.

Ludwig, Nasse, Kupffer, Mayer and Basch found in the splachnic prohibitory and vaso motor nerves besides nerves which by stimulation initiated motion in the bowel. Also Mayer and Basch could by irritating the vagus prohibit interstitial movement. Basch and Erhmann believed from experiments that the splachnics are the motor nerves of the longitudinal muscular layer and prohibitory to the circular muscular layers, and that the vagus stirred up the circular muscles while it prohibited the longitudinal muscles. Fullner claims that he found the nerve erigentes to be the source of longitudinal muscular action while the hypogastric nerves were the motor nerves for the circular muscles. Lately Steinach claims that the motor innervation of the intestinal tract is through the poster sensitive roots of the spinal cord. The portion of the colon supplied by the inferior mesenteric artery, i. e., the descending colon, sigmoid and rectum have an analogous supply as the upper portion of the digestive tract. The nerves from the spinal cord pass through the rami communication, onward through the lateral chain of sympathetic ganglia into the hypogastric plexus, plexus mesentericus inferior which plexuses supply the sigmoid, rectum and descending colon.

The lumbar region was proven by Goltz's experiment to have a motor center for the rectum. In this case the spinal nerves course through the hypogastric and mesenteric plexuses to act as motor nerves for the bowel. The sympathetic nerves and ganglia, the unconscious motors of the assimilating laboratory, work steadily on while the digestive tract has any contents. It is entirely analogous to the uterus. When there exists contents in the uterus its walls pass and repass through constant waves but if it is empty it is quiescent, it is still. So it is with the bowels, an empty gut is still a full one, is nearly always in motion.

Anæmia of the intestines lessens the peristalsis while hyperæmia increases the

peristalsis. Chemically indifferent substances will create bowel motion according to their deviation from the normal body temperature. It must be remembered that over distension makes contraction impossible, i. e., tympanitis is paralysis just exactly according to its degree of distension. Tympanitis is accompanied by slight peristalsis but the pain is due to local spasm, especially of the circular muscles. It appears to me that the circular muscles of the bowel can so obliterate the lumen that it practically prevents all passage of contents. Doubtless the muscles would sooner or later tire out and admit of the passage. We may say that it is extremely rare to observe the physiologic bowel peristalsis through the abdominal wall. But it is not at all rare to observe the bowel peristalsis, through the abdominal wall in a pathologic state. In normal state abdominal wall is so thick *and the change of shape and form of the gut is so slight that one can seldom definitely mark out bowel peristalsis.* In belly walls thinned by wasting disease and muscles thinned and separated by the stretching of the walls one may map out moving bowel coils very easily, especially is this the case in bowel obstruction.

Peristalsis of a pathologic character may be (a) increase, (b) tonic contraction and (c) the so-called antiperistalsis. The rolling motion of the bowel described by Prof. Nathnagel, I would call pathologic. If one will open dogs with peritonitis there may be observed irregular bowel movements. Shart contraction of both longitudinal and circular muscles. In fact the peristalsis has become irregular, excessive, wild, disordered. The slow, normal, pendulum movements or dilatation and contraction of gut has been displaced by violent movements. The bowel movements or peristalsis is accordingly violent and wild as the bowel wall is inflamed. One may observe increased bowel peristalsis in (a) irritating foods, (b) by strong doses of physic, (c) in sudden mental disturbances, (d) in neurotic patients, (e) in hot or cold fluids, drinks or foods, (f) in enteritis or peritonitis, (g) especially in intestinal stenosis, (h) the absorption of lead into the system, (i) exposure to cold. It did not appear to me that traveling of dogs increased the peristalsis, yet in general

motion adds to increase peristalsis. The important tetanic bowel contraction is significant for in experiment one can observe by pinching a piece of bowel it will contract into a pale white cord, perhaps entirely closing the lumen for all practical purposes. The tetanic contraction slowly yields its spasm, but doubtless is accompanied with terrific pain. For almost every drop of blood is driven out of the gut wall and the nerves are pressed in a traumatic state. If neuralgia is a payer for fresh blood, surely this is a typical example. Doubtless in the violent pain of lead-colic (colica saturnina) the gut is contracted to a white rod and that the condition of persistent pain depends on various segments being successively attacked. Tonic contraction of the gut wall is a frequent condition of bowel stenosis. If one will sit down by a patient with sufficient bowel stenosis to produce obstruction of the bowel contents by placing the hand on the abdomen he can easily perceive the bowel movements, because in such patients the belly wall is usually thin. The bowel movements are almost constantly felt, they gradually increase until the small intestine may feel as hard as a rolling-pin under a sheet and such a hard bowel will gradually relax when the same phenomenon will appear elsewhere. It is quite probable that progressive peristalsis is not accompanied by pain, no matter how lively it acts. But tonic or spasmodic contraction of the bowel can and is accompanied by the most sickening pain. The chief pain from the bowels (colic) no doubt arises in disturbed or disordered peristalsis. Local inflammation in the gut producing an irritability of the peripheral nerves induces irregular, disordered and wild bowel contractions with severe pain. Much has been said by writers in regard to antiperistalsis, i. e., a peristaltic wave directed toward the pylorus instead of toward the anus. I have studied this subject considerable in an experimental method, but have never been able to see distinctly anything but very irregular anti-peristaltic waves. I tried Prof. Nathnagel's claims that sodium salts made antiperistalsis and Potassium salts induced peristalsis but after several trials on dogs to test the direction of the gut I could not consider it of any practical value, neither could I confirm his asser-

toins. After laparotomy we observe frequently considerable pain and almost always accompanying this pain there is more or less tympanitis. This pain is due to irregular contraction of the gut wall. Segments of the bowel become over distended which is a kind of partial paralysis and it cannot again contract. This distended portion does not give pain. The pain arises from the non-distended or practically distended segments which are in a state of spasm, irregular contraction and with irritable peripheral nerves.

The Prevention of Infantile Diseases.*

By D. E. SULLIVAN, Concord, N. H.

The importance of this subject cannot be over estimated. As guardians of the public health, interested in everything tending to remove hinderances to the enjoyment of well-being, we are confronted by many problems for solution; but none can more rightfully lay claim to our earnest attention and thoughtful consideration than one whose interests are embodied in every household blessed by the legitimate and natural consequence of matrimony.

It has been truthfully said a child's education should begin generations before its birth; let that be granted and yet we must admit with a painful sense of negligence that very little thought is given to the proper care of a child, even at its birth or during infancy.

One is born into this world without any volition on his part, weak, helpless, defenceless; through no act of his he becomes a living being, and often times his advent is unsought and unwelcome. Thrown in this pitiable condition upon the resources of others himself an innocent party with the natural right to life—an ordinary amount of intelligence is demanded of those to whom he is entrusted.

Sad to relate, the knowledge of the intelligent care of a baby possessed by the average mother is not very great; at times it seems she gives it no thought whatever until the actual presence of the crying infant arouses her to the situation.

During her pregnancy she has not advised with her physician as to the best way of living to bring forth healthy offspring—has not suitably cared for her milk secreting glands nor sought any information for the proper direction of the newborn; she gives more time to the planning of a new house than she does to one who is borne of her bone, flesh of her flesh.

It is not pleasant to dwell on this, but it is a stern fact and must be faced; the ignorance of the future mothers is appalling, and its fruits will be gathered in a whirlwind of disaster, unless we of this generation do our solemn duty.

There are to-day mothers who never should have been wives—such women fill orphan asylums. There are in every town fresh graves filled with white caskets—those infants should never have been born.

Did we have the opportunity to admonish women before marriage, much of this would be avoided; but, accepting the present manner of courtship and matrimony, expectant mothers must be made to understand that the health and happiness of their children will in a great measure depend upon their own health.

This should be popularized.

They must be encouraged to make regular visits to their family physician for information of which they sorely stand in need. It may be years before this can be accomplished as the customs of centuries must be overthrown and the necessity of the new order proven; so also must the long train of false teaching marking the course of the so-called nurse be obliterated. We have trained nurses for everything in medicine and surgery, but allow any one, no matter how incompetent, to direct the lying-in period.

How we are deceived.

It is so rare to find a graduated nurse who has devoted her talents to this specialty and so common to meet the one who knows more about babies than the doctor. An ignorant, willful woman can do more harm here than in any other case; unbeknown to the mother, she can and will dose the little one with paregoric, soothing syrup or gin as her fancy dictates. She is not truthful and will not accept orders, to say nothing of obeying them; she is not reliable and when she leaves her charge, its last state is very

*Read before the New Hampshire State Board of Health Oct. 14, 1896.

often worse than the first. The tender skin so easily congested is forcibly rubbed during the bath and the epithelium denuded with the usual result; the head is held sacred to the touch and its repulsive coating of eczema is regarded with as much reverence as a kingly crown; crying is a sure sign of hunger and more food is given only to add to its distress.

Hunger is so seldom a cause of crying in an healthy infant that the famous professor of diseases of children in a metropolitan college could be easily forgiven for thinking of every other possible source of irritation in his own child before he thought of feeding it when that was really what it needed.

Are we not remiss in our duty when we do not strongly recommend a skilled nurse for this work? At present they are few in number, but with the demand, their ranks would be filled; let there be more bright young women encouraged to help humanity by making this a study and a calling.

Will the district nurse be able to do the missionary work, or will it be necessary to establish day nurseries? In the non-manufacturing cities, the former would surely be a great aid and might for the present suffice; but where, through force of circumstances, a goodly number of infants are dependent from morning until night on such care, or lack of care as is given them in the mothers absence, nothing but an especially adapted institution will avail to stay their frightful destruction. Some of our busy cities may be blessed by these nurseries where by competent women babies are cared for, practical demonstrations given mothers, and nurses graduated for this particular work; certainly is there an urgent need of them where so many mothers may be daily employed in the mills. Their death rate is largely increased more particularly during the summer months, because so many infants succumb to the effects of improper feeding; this question has never received the investigation an outraged people would demand, did they realize its full significance. Think of it, you guardians of the public health.

During the year of 1893 in this glorious Commonwealth of ours, world famed as a natural health resort of thousands gathered from all climes, there were four hundred and twenty-three deaths from

Cholera infantum alone. More by a score than were caused by Bright's disease, typhoid fever, measles, diphtheria and scarlet fever combined. Did it ever occur to you so many innocent lives were going out from among us? So many budding rays of light that in this free country might have illuminated the world were so early extinguished? Its enormity grows with its contemplation. This monster eating at our very vitals, sapping the life-blood of our boasted institutions and we almost indifferent to its presence.

Of every hundred children born, twenty-five fail to reach the fifth year. Science must have made a failure of its efforts to know much of the mysteries of what we call Life when such a slaughter of the innocents has continued for it does not seem right that every fourth child born should necessarily die within a few years of its birth.

We prevent consumption, up-root typhoid fever, isolate diphtheria, preach hygiene and undoubtedly lengthen the term of man's existence in many other ways, but at the threshold of life—at the cradle—we are powerless. It is only a baby you say, but ask that father, that mother and you will find to them that baby is dearer than all else in the world.

For sometimes I have believed boards of health should prepare printed information on the care and proper feeding of infants and place a copy of it in the hands of every mother in the state; when we are made registrars of vital statistics as becomes us and as our legislature should authorize us, it will be an easy matter on the receipt of the birth certificate to forward such instructions to her.

Thereby she would learn of many dangers lurking in a feeding bottle daily exposing her child to sickness and death—she would plainly see her baby's safety is paramount to her own convenience and social pleasure—she would be told the stupendous fatality of artificially fed babies over nursing babies, that as collected by one investigator out of 1940 deaths in infants 1879 were bottle-fed.

We know some women cannot possibly nurse their children—we know others who can, but should be allowed to nurse them; for these two classes a substitute for the breast must be provided, but for all others the natural way is the proper

way and should be insisted upon—no excuse should be thought sufficient to release them from the birth-right claim of the child.

Diseases of the gastro-intestinal canal cause such a large proportion of infantile deaths and these diseases are so often due to improper feeding, it behooves us in every case where a nursing bottle is used emphasize the necessity of absolute cleanliness in everything connected with the feeding and the importance of regular feedings in definite quantities.

To vomit after every meal is not a badge of perfect health, nor continued crying a requisite to good digestion.

I believe I am within bounds when I say not one woman in twenty in our state to-day is giving her baby the benefit of scientific and hygienic methods of feeding.

In the midst of plenty is starvation; with a stomach full of food comes death from inanition. That mother who under fed her baby is not to be found, but the over-fed infant is everywhere present.

It is so difficult to convince people there is a limit to digestive powers that even in the face of repeated remonstrances they continue to make miserable the child's existence; not alone with food proper and digestible of itself, but also with all kinds of indigestible things—it is not uncommon to see a two-year-old eating grapes, peanuts and unripe apples. It may yet be necessary to regulate by law, as France has, the feeding of infants in so far as prohibiting the giving of solid food to those under one year of age.

But did mothers know the fatal dangers attending it no law would be necessary to restrain them; they know not what they do and to us they are a sacred trust to be religiously guarded.

If due attention be paid to the milk and its source, it will seldom be necessary to use any of the numerous baby foods so extensively advertised; good cows milk properly given is the best artificial food for an infant—all other foods are imitation of it.

Tuberculosis in the child has been traced to the cow supplying the milk and is perhaps the only strong objection to that animal as a source of infants food; but the more general use of tuberculin would remove that, and it is pleasing to relate that many dairymen have of their

own accord, within the past few years submitted their herds to this test. They have anticipated the duty of the state, but by legal enactments should be compelled to protect the interests of those weak subjects.

With desolation is the land made desolate, even in this day of advanced science when we are well-nigh overwhelmed by the practical progress made in our glorious profession; parents do not know that whooping-cough has in the past ten years caused more deaths in this state than measles and that in some countries it ranks third in the fatal diseases of infancy; they do not seem to understand that teething is a physiological process or that teeth are necessary for mastication; neither do they value the dangers to vital organs after scarlet fever nor recognize the meaning of growing pains with their tendency to heart lesions.

Towards the poorer classes more particularly must our efforts be directed; they cannot recompense nurses, but the daily or occasional visit of a district nurse would be to them a bright gleam of sunshine and no one can say how many blessings would follow from it. Early impressions are lasting.

The day has gone by when "the good men do is oft interred with their bones." The kindness of to-day may years hence arise as sweet innocence to ease declining years.

Can we turn our thoughts to a more humane subject than that of the alleviation of an infants suffering and the prevention of its untimely death. The world abounds with weeping Niobes, comfortless and refusing to be comforted because their cherished ones are no more; few of the homes not hushed by the reflection of those prattling lips forever stilled.

Shall we pass by the other side or pause, bind up their wounds pouring in oil and wine?

Let us suffer little ones to come unto us, fight their battles with all our strength of mind and body, lend our aid to bridging over these few first years life and at all times in the presence of infancy remember we too were like unto them.

In behalf of those mourning women and afflicted fire-sides, in defense of suffering baby-hood struggling for an

existence, and in the name of the myriads of unborn, the appeal goes forth asking us to earnestly and faithfully strive to rectify the failure of ages, to suspend that fatal sentence decreed before birth and to hasten the day when the iniquities of the parents shall not descend on the innocent.

Rupture of the Choroid Coat.

By JAMES H. BUCKNER, M. D., Cincinnati, O.

Of all the injuries to the coats of the eye-ball, as the result of violence, rupture of the choroid is probably the most rare. This view is sustained by the list of recorded cases so far as I have been able to find them.

The Index Medicus, and Index Catalogue of the Surgeon General's office at Washington, D. C., to be found in our splendid Medical Library of the Cincinnati Hospital, beginning with the reference to Graefe's two cases, published in 1854 and 1855 up to 1881 inclusive, furnishes the names of twenty-three authors who collectively report in that period of twenty-seven years, thirty-five (35) cases. Of these, eight are reported from America and twenty-seven from Europe.

The New York Archives Ophthalmology furnishes only two cases from 1879 to 1892, inclusive.

The Royal London Ophthalmic Hospital Reports, from 1857 to 1894, give only nine cases.

When we consider that the R. L. O. Hospital has an attendance of about one hundred thousand cases per year, and a medical staff which has no superior in any other eye hospital in the world, we can more easily estimate the rarity of the occurrence of this injury to the choroid. A careful analysis of reported cases indicates that the line of rupture is usually upon the temporal side, and concentric with the disc. This has been accounted for by the fact that "the portion between the macula and the pupillæ being immovable" by reason "of its attachment, is subject to the greatest strain, so that a horizontal rupture is the result*."

Although the line of rupture is gener-

ally concentric with the margin of the optic disc, several exceptions to the rule have been reported. Johnathan Hutchison (R. L. O. H. R., Vol. 12) gives an interesting case, the result of a blow from a rubber ball. Numerous linear scars were observed running horizontally, and not curved.

Dr. Manhardt (R. L. O. H. R., Vol. 8) reports three (3) cases of rupture of the choroid, in two of which the lines of rupture were oblique.

The case which I report belongs to the exception as to the location and direction of the rupture:

CASE—March 22d, 1894. P. E. J., paper maker, age 29, called at my office for examination of his eyes. The eye balls were normal as to tension, pupillæ normal as to size and mobility. Scleræ clear. Vision L. E. $\frac{2}{100}$, R. E. $\frac{2}{100}$; neither plus nor minus glasses improved vision. Dilated pupils with 5 per cent. solution cocaine. Ophthalmoscopic examination: L. E. vitreous humor cloudy and filled with patches and shreds of floating opacities, fundus could not be seen. R. E. vitreous clear, optic disc hazy. Retinal vessels tortuous, and veins dilated, two of the latter, below the disc (inverted image) bend abruptly upon reaching the margin of the disc, as in incipient glaucoma. Above the disc (inverted image), extending obliquely from its margin, is observed a white glistening line, which branches about two lines from the disc, at an acute angle, the retinal vessels passing over it. I was uncertain at this examination, which was necessarily hurried, whether to regard the white line as a scar of an old rupture of the choroid or not. In writing down the notes of the case, I elicited the following history: At the age of 12 years he was struck between the eyes with a base ball.

Although not knocked down, he was badly stunned. Both eyes were discolored as the result of the blow. But he can not remember as to the loss of vision at that time. He claims never to have had any specific trouble. He only noticed about two years ago that his vision was beginning to fail. As his eyes were not inflamed or painful, he did nothing for them until he consulted his family physician, who sent him to me. I prescribed for the patient small doses of potass. iod. and bichloride of mercury, and ordered

*Mr. Henry Hughes, Graefe's Archives. Vol. 8, page 24.

him to douche the eyes with hot water nightly.

April 5th. Vision much improved. L. E. vision $\frac{20}{100}$, a gain of $\frac{18}{100}$. R. E. vision $\frac{20}{70}$. Oph. ex.; L. E. has cleared up so that the fundus may be seen. The vitreous is still filled with patches and opaque rope like shreds, which float freely with the movements of the eye. The largest of these floating bodies, is a fine lace work membrane, attached at one end to the margin of the disc; it is white and sac like, and encloses at either end two opaque bodies, which look like blood clots. R. E. veins not so tortuous nor dilated. as in the previous examination; there is still a hazy appearance about the disc as in neuro-retinitis.

With direct examination, I now satisfied myself that the white glistening line extending from the margin of the disc, obliquely downwards, as shown in the drawing, (the branches separating at an acute angle and curving at their extremities, one towards the temporal, and the other towards the nasal side, of the fundus) is the sclera showing through the lacerated choroid. The blood vessels of the retina are plainly seen above the white line.

May 4th. L. E. vision $\frac{20}{70}$. R. E. vision $\frac{20}{70}$.

L. E. The field of vision is narrowed throughout its entire circumference, but is greatest in its superior and outer quadrant.

R. E. Field is diminished in its nasal half.

May 23d. I tested again the refraction, accommodation paralyzed with solution of homatropia, 8 grs. to one ounce of water.

L. E. V. $\frac{20}{100}$; R. E. V. $\frac{20}{100}$.

L. E. with $\times 0.75$ c. ax 90 V. $\frac{20}{70}$.

R. E. with $\times 0.75$ c. ax 90 $\times 0.50$ S. V. $\frac{20}{70}$.

May 28th. L. E. V. $\frac{20}{70}$. R. E. V. $\frac{20}{70}$.

Reads No. 2 Snellen at 8 in., and No. 4 Snellen at 12 in. with the above glasses, and with both eyes V. $\frac{20}{40}$ nearly with the same glasses.

The location of choroidal rupture in this case, was doubtless due to contracoup. The hard ball impinged with great force upon the superior and inner portion of the right eye ball. Concussion of the left eye from the same blow prob-

ably produced hemorrhage from the retinal or choroidal vessels of that organ, and to this lesion it is reasonable to suppose is due its present condition. The floating bodies in the vitreous are inflammatory products. The length of time which supervened from the date of the accident and the impairment of vision noticed by the patient, is no criterion by which we may judge either the actual damage done, or the loss of vision at the time. As to the latter he cannot remember. Owing to his youth the hemorrhage into the vitreous was speedily absorbed, and vision was restored at the time almost to its normal condition, at least so far as the boy was able to judge,

The date when he first discovered the impairment does not invalidate the probability that it existed, to a greater or less extent, in one eye several years prior to that time.

Finally, the rarity of rupture of the choroid is due to the elasticity of all the coats, together with the soft and elastic cushion of fat upon which the eye ball is supported.

No. 333 East Fourth Street.

The Radical Cure of Inguinal and Femoral Hernia.

By J. COPLIN STINSON, M. D., C. M., San Francisco, Cal.

In deciding on an operation for the cure of hernia, the problem is to restore the structures durably to their normal positions, relations and uses. Keeping this solution clearly before us we have the key to the situation. I believe that if these fundamental principles are adhered to, the immense majority of cases are permanently cured and the balance greatly benefited by the operations.

The slight disfavor with which operative treatment is regarded by some is due to the bad results obtained by surgeons who are not familiar with the principles involved and the special anatomical conditions associated, or whose methods of operation have been incomplete, or illogical and unscientific. All methods that are incomplete,¹ that involve the principles of cicatricial² tissue forming a barrier, of introducing extraneous substances,³ of displacing⁴ or disar-

ranging⁵ the structures, should be abandoned. The principles are false in theory, and the number of relapses and deplorable symptoms which follow prove them to be no longer justifiable in practice. When relapse does occur, the complications are so severe that no truss can be worn with any degree of comfort.

The preferable operation is that which restores the structures durably to their normal positions. As a protrusion most frequently finds its way through the rings and canal in the inguinal region, I shall devote my paper in the main to that kind of hernia. In earlier papers⁶ I reported eighty-five cases of inguinal hernia, in which radical methods of operation were performed, gave an analysis of the cases, stated the methods employed and the results obtained.

I stated that an operation to be followed by a cure should fulfil the following conditions:

1. Cause total obliteration of the sac.
2. Allow for the safe transmission of the cord and its structures.
3. Not result in atrophy, inflammation, &c., of the testicle.
4. Close durably the breach in the abdominal wall.

I reviewed the various methods of operation, and then described the method I used, giving a report of the cases operated upon to that date.

The principles upon which my operation is based are the following:

1. Supra-correction of the peritoneum at the dilated internal ring, by removing the sac and the peritoneum continuous with it as high as possible, and closure of the cut edges with a continuous suture.
2. Suture of the internal ring, placing the spermatic cord next to the pelvic bone.
3. Reinforcement of the internal ring and closure of the canal, by uniting the contiguous muscles and their conjoined tendon to Poupart's ligament.

Briefly the steps of the operation are:

1. An incision is made from the external ring to one-half an inch above the upper angle of the dilated internal ring, parallel with and about one-half an inch above Poupart's ligament. It divides the skin, the subcutaneous tissues and the aponeurosis of the external oblique. The cut edges of the latter are lifted and freed from the structures beneath till the outer

border of the rectus and the shelving edge of Poupart's ligament are clearly seen.

2. The sac is isolated and opened; the contents cleared out, removing all altered omentum; the sac and the peritoneum continuous with it are removed, the serosa being drawn down and removed as high as possible; closure of the cut edges with a continuous suture.

3. The rings and canal are cleared out of masses of fat, glands, and adhesions; all such masses which bulge into the internal ring from the subserous tissues are also removed.

4. Any markedly varicose veins of the cord are excised high up within the internal ring.

5. The internal ring—an opening in the transversalis fascia—is sutured from above downward, leaving only sufficient room next to the pubic bone for the cord.

6. The internal ring is reinforced and the canal closed by uniting the internal oblique and transversalis, and their conjoined tendon to the shelving edge of Poupart's ligament, leaving room for the cord next to the pubic bone.

7. Closure of the cut edges the aponeurosis.

8. Closure of the skin, without drainage.

STITCHES.—For uniting the different layers the continuous stitch may be used. In my last five cases I have used with advantage a stitch described by C. Ford. I used the first half of this stitch, for closing the peritoneum, the internal ring, the aponeurosis, and the skin; but for reinforcing the internal ring and closing the canal, I used it complete. In an earlier paper on the operative treatment of femoral hernia, &c., I described this stitch.

SUTURES.—Chromicized tendon is the most suitable material for a buried suture, as it is non-irritating and is not absorbed for two or three months.

DRESSINGS AND AFTER TREATMENT.—Bichloride of mercury gauze next to the wound. Long strips of adhesive plaster to hold the dressing firmly in place, then a layer of cotton and firm spica bandages.

Dress the wound on the seventh day or earlier if there are indications. In removing the strips pull the ends toward the edges of the wound, so as not to tear the skin edges asunder. Apply dressings,

&c., as before. Keep the patient in bed two weeks, or longer if possible. If primary union is not obtained, keep the patient in bed till cicatrization is complete. The firm bandages, &c., are removed one month after the operation, when the patient is allowed to go *without any pad or truss*. When the adhesions between the sac and cord are firm, open the sac first. This saves time, as the limitations can be more readily defined, and the adhesions more easily and quickly separated. In removing the sac and the peritoneum continuous with it, usually about $1\frac{1}{2}$ inches of the serosa above the neck of the sac can be readily drawn down and removed. In removing omentum it is perfectly safe to tie the vessels only. This does away with numerous and mass ligatures; omental stumps and lumps of fat constricted by ligatures. To insure the ligature from slipping off, use the "fixation" ligature. The vessel to be tied is defined by spreading out the omentum, and the needle carrying the catgut is passed around the artery by piercing the tissues of the omentum surrounding the vessel. The ligature is then tied using a reef knot and the vessel severed beyond the ligature. By this means the ligature is fixed in the omentum.

The operation I have described, I consider, fulfill all the indications and overcome the objections to the methods hitherto described.

The lifting and freeing of the aponeurosis of the external oblique exposes the deeper structures which later on, by this free dissection, are brought accurately together without tension, to close the gap in the abdominal wall. Supra-correction of the peritoneum at the dilated internal ring, causes total obliteration of the sac, strengthens the serosa by converting its outer surface from a convex to a slightly concave surface, carries the former location of the sac high up within the abdomen, away from the cord and the internal ring, and leaves a smooth surface which allows of the free movement of the intestines over its surface. It is better to over-correct as the peritoneum is sure to relapse a little. Very seldom will it be necessary to excise veins of the cord. I have frequently met with enlarged veins. After the removal of the sac, &c., the veins in a short time resume their normal size. Where there is a markedly varicose con-

dition of these veins, their excision when performed high up within the internal ring is followed by good results, as this reduces the size of the cord above the internal ring and canal, and on this account, the ring and canal can be made a little smaller. The clearing out of the rings and canal, and the removal of all masses which bulge into the internal ring from the subserous tissue, removes material which would favor a relapse of the protrusion by keeping the rings and canal open. Placing the cord at the lower angle of the dilated internal ring close to the pubic bone, restores it to the normal position, where it is not subject to pressure or in any other manner interfered with. It hugs the pubic bone whence it passes down to the base of the bladder. It is absolutely unnecessary to form a new internal ring. The suture of this enlarged ring, as I have described, reduces it to the normal size. The lower the internal ring and cord are placed, the further they are away from parietal peritoneum, intestines, omentum, &c., and thus not likely to favor a return of the protrusion.

The closure of the internal ring is the most important step of the operation. Most of the success depends on the accurate suture of this opening in the transversalis fascia, as it is at this ring that the breach first occurs. This layer of sutures forms a firm wall, while the other layers closing the canal and external ring (leaving only sufficient room next to the pubic bone for the cord) reinforce it by forming additional barriers against a relapse. Each of the layers is sutured separately, as it is by this means alone that the different layers can be accurately approximated, and thus firm and lasting union results.

CONCLUSIONS.—From a study of the cases I have reported, and comparison of the methods used by various surgeons, I can only draw the following conclusions:

1. That the operation I have described fulfils all the indications for a radical cure
2. That it has all the advantages of the other recent methods, but none of their disadvantages.
3. That as it has many additional advantages, it should be followed by the best results.

BIBLIOGRAPHY.

1. Stinson: The operative treatment of inguinal hernia, preferable operation, &c. The N. Y. Medical Record, March 7th, 1896. The Therapeutic Gazette, 1896.

2. McBurney's operation; Dennis' System of Surgery, Vol. IV, 1896.

3. Non-absorbable sutures, loops of wire, wire fences across the canal, &c.

4 and 5. Halsted's, Bassini's and other such operations: Halsted in the Johns Hopkin's reports, May 15th, 1895, reports atrophy of the testicle in three of his cases following his operation. W. B. Coley, Am. Journal of the Med. Sciences, May, 1895, reports case of orchitis which went on to suppuration and required incision following a Bassini operation. Prof. W. B. DeGarmo: The Post Graduate Journal of New York, Sept., 1896, in a clinical lecture at the N. Y. Post Graduate Medical School, showed six patients operated upon by Bassini's method. In the first case "there were no adhesions in the sac. Forty-eight hours after the operation, the patient was passing but little urine, the bladder was much disturbed, a trochar was introduced, and with difficulty 36 oz. of urine were drawn off. Later Prof. E. Fuller opened the bladder through the perineum and introduced a tube which was kept in ten days."

In the second, "a double inguinal hernia; the patient had a marked cedema of the scrotum on the right side. I have shown the case to you, because it is not fair to show all cases that are good and not a bad."

In the third: "After the operation there was an enormous cedema of the scrotum and penis. There is still some enlargement of the testicle, and he will have to wear a suspensary on account of it."

In the sixth: "The testicle was at the external ring, the cord was made shorter by the Bassini operation, and the testicle sloughed off, and another operation had to be done for its removal."

G. M. Brewer: Am. Med. and Surg. Bulletin, Feb., 1896, in a report of the condition of the parts found upon autopsy six weeks after a Bassini operation stated: "A certain amount of induration was felt for some time over the course of the spermatic cord, extending to the testicle. This, however, was not specially tender to the touch. The portion of the perito-

neum lining the inguinal region showed a slight puckering near the internal abdominal ring. The skin and the subcutaneous tissue were found moderately adherent to the aponeurosis; the vas deferens, spermatic artery and a number of veins, were traced upward through the artificially made internal ring, and downward into the scrotum, becoming more united and apparently bound together as they approached the testicle."

Stinson: The Therapeutic Gazette, '96, N. Y. Medical Record, March 7th, 1896: "I have notes of a case operated by Halsted's method. The patient a male nurse, was admitted to the N. Y. Post Graduate Hospital, with a mild urethritis and painful testicle, while I was house surgeon. Examination showed a marked recurrence of the hernia, and on the same side, the cord thickened and tender, and the testicle enlarged and inflamed. The cord and testicle of the other side were normal, and did not subsequently become involved. Under treatment the urethritis got well, and the pain and tenderness in the testicle subsided. When he was discharged from the hospital there was marked thickening of the cord and enlargement of the testicle. A possibly cured hernia, an enlarged, thickened, painful and adherent cord, and an hypertrophied or atrophied testicle, are a most deplorable combination. Swelling and thickening of the cord, I have frequently seen follow Bassini's operation."

6. N. Y. Med. Record, March, 1896. The Therapeutic Gazette, 1896.

7. Stinson: The operative treatment of femoral hernia, preferable operation, &c. N. Y. Med. Record, 1896.

8. Ford: An interrupted stitch by a continuous method. Pacific Medical Journal, July, 1896.

9. N. Y. Medical Record, March 7th, 1896.

10. Gross, G.: Transactions of the California Academy of Medicine, June 20th, 1896.

11. Marcy: The buried tendon suture. Transactions of the Am. Med. Association, 1896.

326 Kearny Street.

San Francisco has a physician ninety four years of age, who has been in active practice sixty-four years.

Hypnotism.

An article on this interesting subject by Dr. Wm. J. Burd, of Belvidere, New Jersey, appears in the October number of the *Codex Medicus*.

He claims that hypnotism is no new thing, but on the contrary it is older than the human race, inasmuch as many of the lower animals possess very great hypnotic influence.

He traces hypnotism amongst the ancient Egyptians, in the Bible, and amongst the Greeks, Romans, and Gauls, also through the middle ages down to the present time.

This historical research shows that Mesmer was merely an elaborator of a force understood to a certain extent

He mentions the controversy, still being carried on, between the school of Charcot and the school of Nancy. The school of Nancy claiming that the phenomena is purely psychical, while the followers of Charcot claim that it is entirely physical. The writer believes in the theory of the school of Nancy and follows its method of bringing a subject under hypnotic influence. This method is by suggestion alone; the effort being made to bring the hypnotic condition as nearly as possible to the normal mode of going to sleep and waking. In so doing, he believes there is no danger to the person hypnotised, providing any delusive suggestion is disposed of before the person is brought out of the hypnotic state.

Dr. Burd claims that persons cannot be hypnotised against their will; though they may possibly be after being influenced a number of times, voluntarily, by one person. Contrary to the general belief, he finds that persons are most easily influenced who are accustomed to concentration of thought; in other words those of a good mind.

He believes there is great danger in the promiscuous exercise of the hypnotic influence, and that it should be confined physicians, and other scientific investigators; that it should be regulated by a State license granted to no one of a questionable character.

There is no doubt but that hypnotism has a place in therapeutics, and is no more dangerous than many of our most valuable drugs. If scientific physicians would recognize its influence for good and use it, there would be no chance for

faith healers, Christian scientists, magnetic healers, and other charlatans, who work wholly on the line of the mysterious.

Physicians should accept hypnotism as a force, study it carefully, and use it in a scientific manner for the betterment of those patients that clearly would be benefitted by it.

Intemperance and Lunacy.

According to Dr. Robert James, medical superintendent of the Claybury Asylum, London, "Intemperance in drink is responsible for more than 20 per cent. of all cases of insanity among the admissions, being nearly as high as 24 per cent. in men; and however much cause for satisfaction there may be from carefully compiled and reliable statistics as to the diminution in the consumption of alcohol per head of the population, it remains as an ineradicable fact and a stigma upon the nation's self-control, that apart from crime and misery, almost one-fifth of all lunacy among the wage earning and productive section of the male population is, directly or indirectly, due to its cause. And this is not all, for there are thousands of men and women with shattered brain power, who do not reach asylums, but are yet incapacitated from useful and remunerative work. These alcoholic cases are most difficult to deal with, as they constitute the great bulk of recurrent or relapsing insanity.

Alcoholism in Children.

M. Lancereaux, who takes an active part in the struggle against alcoholism, is now engaged in demonstrating its influence on children. On growing children its effects are particularly lamentable. M. Lancereaux has closely studied two young girls from 13 to 14, born of alcoholic parents, and accustomed to drink a litre and a-half of wine per day since age of 3 years. They are victims to visceral lesions typical of alcoholism, and present all the signs of well-marked "infantilism." These cases confirm the results of experiments on animals. The stunted growth frequently met with especially among recruits, the increasing number of weak, sickly children, arrested alike in their moral and in their physical development, and the increase of crime are all to be laid at the door of alcoholism.

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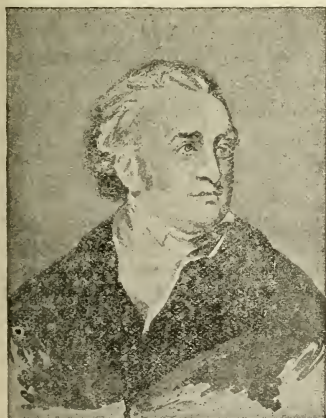
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The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

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As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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Mr. FELLOWS, 48 Vesey Street NEW YORK.

THE Charlotte Medical Journal.

E. C. REGISTER, M. D. J. C. MONTGOMERY, M. D.
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NO. 36 SOUTH TRYON STREET, - - - - -
- - - - - CHARLOTTE, N. C.

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CASTRATION FOR CRIME AND INCOMPETENCY.

It is probable that at the present day 99 per cent. of the people believe in heredity in its broad sense, and by heredity I mean the transmission from parent to child of mental and moral, as well as physical, qualities and peculiarities.

It will be freely admitted by the 99 per cent. that there are exceptions to this law of heredity, but one will be assured with equal freedom that these few exceptions simply prove the rule. So deeply is this belief engrafted that one finds it cropping out in proverbs as, "a chip of the old block;" "like father like son;" "bred in the bone," etc.

It is certain, moreover, that this popular belief, unlike many others, has a scientific foundation.

Now, granting this wide special belief, does it not seem incomprehensible that the vast army of criminals and incompetents should be allowed to propagate their kind at will?

In 1895 the Legislature of Connecticut, recognizing this evil in part, passed a law which made it a serious criminal offence for any epileptic, idiotic, or feeble minded person to marry, or for any person to cohabit with any one included in these classes.

But what an absurdity appears on the face of this! As if an idiotic or feeble minded person would recognize the fact that he or she was idiotic or feeble minded.

The only good feature of the whole matter is that it shows public opinion is coming round to this all important question. It will be a valuable hint for other legislative bodies.

But as indicated above, only a part of the evil was recognized. What of the

vast army of criminals, habitual criminals, which breed as animals, and which propagate only vicious progeny? These are the people who would wholly disregard any law, such as was passed by the Connecticut legislature, if it was made to apply to them, and would persist in their vicious propagation of criminals always.

Now what is the remedy? We answer castration! "Castration for crime and incompetence" should be the key note of reform in our penal and corrective institutions. The system in vogue at present has proven itself, so far as the cure of criminals is concerned, a total failure.

Reformatories and jails do not reform, they rather accentuate the existing tendency in the habitual criminal.

But think what a deterrent influence the fear of castration would have upon a man of largely developed animal passions and instincts. We cannot imagine any stronger influence which could be brought to bear upon such a person, and if the fear of this did not have a sufficiently deterrent influence to prevent crime, the operation itself would, as we know from its effect upon animals, have a distinctively curative effect upon vicious minds.

There are, in fact, no arguments to be advanced against this remedy. It is a safe operation at the present day both for male and female; it is preventive; it is curative.

THE TREATMENT OF INOPERABLE MALIGNANT TUMORS.

Some few years ago, Dr. Coley, of New York, popularized a method of treatment for sarcoma, which has since, in this country at least, borne his name.

The method had been introduced several years previously by some German workers; but until Coley commenced work upon the same lines and gave his results to the profession, practically nothing was known of it.

The treatment consisted in inoculating the tumor with the cocci of erysipelas. This was modified later by adding to these the bacilli prodigiosus, and still later by using instead of a culture of these germs, a filtrate from the culture which contained their *toxins*.

From the first Coley has gotten very satisfactory results with this treatment.

He refused all cases which had a fair chance of recovery from operation, and accepted the most hopeless ones; consequently he is entitled to all credit for fairness in his series of test cases. In 1891, '93, '94, '95, and '96, he has published papers upon this subject, emphasizing his arguments by records of cases cured in this way.

His last paper, which by the way is in a measure a synopsis of all his previous papers, appears in the September number of "The American Journal of the Medical Sciences;" and will well repay perusal.

Instead of retroceding from his position, that some cases of sarcoma may be cured by these injections, he stands by his guns and insists even more emphatically that sarcoma may be so cured, and that carcinoma may, under certain conditions, be at least improved and possibly cured.

The writer was a short time ago in New York and had an opportunity then of conversing with a gentleman who is conversant with the work being done by Dr. Coley. He was assured by him that to his own personal knowledge there was no question of the correctness of some of the cures enumerated by Dr. Coley.

Unfortunately, for some reason, other investigators have not met with the same measure of success as Coley, and this has tended to cast discredit upon the method of treatment.

The writer has experimented with five cases, three of sarcoma and two of carcinoma. One of the former did not continue treatment long enough to determine anything; with the other two the result was indifferent.

One case of carcinoma gave no result, and the second is at present under treatment.

These tests are somewhat disappointing and yet when one considers that these cases are otherwise hopeless—none being touched which are not inoperable—and that reliable reports give a small percentage of cures, it would seem that the plain duty of the physician is to hold out to the sufferer this one last possible hope of cure.

So far as known no bad results have been reported from the treatment.

The reaction in many cases is great, a temperature of 104° or 105° being not

uncommon, but a few hours shows the temperature at normal and only a moderate malaise left to show what has been of ill effects.

If then no harm results, if a small percentage of the cases be cured, and if it be our primary duty to save life, we say again, give the sufferer this one chance, even though it be a slim one.

SCIATICA.

Sciatica differs from the large majority of neuralgias in the fact that it seldom results from constitutional conditions, being a disease of middle and advanced life, more frequently in men than women. The ordinary predisposing causes of neuralgia have comparatively little influence in the development of sciatica. This is practically true of heredity usually so potent in the etiology of neuroses. The disease has long been supposed to be intimately related to rheumatism. In the narrow as well as in the more vague and wider sense the fact of such connection is by no means well established. Sciatica begins not infrequently with an attack of lumbago, and the supposed cause of rheumatism acts unfavorably in sciatica, but further than this nothing can be said of the connection between the two diseases. Infectious diseases and malaria are infrequent causes, in these cases the pain being confined to a small branch of the nerve. External agencies, muscular effort, traumatism and exposure possess an unusual degree of influence in the development of sciatica as compared with other neuralgias. A variety of causes play an important part in the causation of this affection, and when all is said we meet with not a few cases in which the most patient examination fails to reveal the cause of the malady. Sciatica is usually preceded by prodromal manifestations, though it sometimes begins suddenly with full severity, the pain becoming sharp, paroxysmal and intolerable in its intensity.

So far as treatment is concerned the number of remedial agents is numerous. It seems that in the majority of cases an empirical treatment must be adopted. It is well to begin treatment by administering a free cathartic, and by securing sufficient daily evacuations. In the experience of the writer, residing in a part of the coun-

try where the disease is quite prevalent, electricity in the form of galvanism, massage, baths, the patient being put into a hot bath, lasting for five or six minutes with the water as hot as the patient can bear, (often producing refreshing sleep,) strychnine being given $\frac{1}{48}$ gr. thrice daily, dose being increased rapidly to the point of tolerance by the patient, has proven the most effective curative agents with a pill given often enough to procure a relaxation of the muscular system, composed of the active cathartics, one of the principal ingredients being Oil of Tigli, the action of which is manifested and the good results apparent by relaxing the tension, so to speak, of the sciatic nerve. With this treatment good results are, in many cases, noted almost from the first.

WHAT PHYSICIANS OWE TO EACH OTHER AND THE MEDICAL PROFESSION.

Any one who enters the medical profession with the sole idea in view of getting money, will never be a worthy member of the profession. Saturated with such an idea his sensibilities, if he ever had them, become blunted, and he will fail to carry out the golden rule. The king of his actions will be, *will it pay me* to do thus? Will it put money in my pocket? He will be guided by money motives alone, and not by a sense of justice and right.

Such a man will remain silent when he hears a brother practitioner blamed or villified when he knows positively every word is false. He hopes to be in some way benefited thereby. If he by any means gets any medical fact that is valuable, he is careful to keep it from all other physicians. Self interest dominates everything with him. When he dies very few, if any, of his medical brethren have any regrets.

The true physician in his treatment of his medical brethren is guided solely by what is right and just. He is courteous and kind to all. His treatment of his younger brethren is governed by a generous heart, controlled by a big brain. It is a real pleasure to him to commend the deserving, and he is never stint with his praise, when he knows it has been merited. He never, no matter how prosperous, and world wide his fame, forgets

the courtesy due the humblest member of his profession.

What is grander than to see a man noted for his great deeds showing marked consideration for one too humble in life to be of the slightest benefit to him, and who, in all likelihood, may never meet him again?

The conscientious physician too, feels that whatever by his labors he has acquired, and has proven by experience to be valuable as a remedial measure, is the common property of his medical brethren, and it is one of his greatest pleasures to make it known. All men can't be great and famous, but there are none who can't do good to some soul, and do right if they so wish, no matter how limited their sphere.

Only a few days since we read a piece from some physician, in a medical magazine, advocating the right for a physician to patent any discovery that was valuable, so that he might get the exclusive benefit of it, on the ground that he may have devoted years of his time to perfect his discovery, and also money for the same purpose. That it is considered right for any one else to do this, and therefore the physician should not be criticised for so doing.

No man ever invented or discovered anything in medicine that was a blessing to humanity, in these times, who has not been more or less benefited thereby. Any man, physician or what not, who makes a discovery that will unquestionably preserve life and keeps it secret for his own benefit, is not worthy of the name of man.

The noblest of professions, the one that has always had at heart the good of mankind can not be made to demean itself by any such action; and the large majority of the medical profession would never, in my opinion, consent to any action which would result in making the profession more selfish.

We favor to the utmost every means which will enlighten, ennoble, elevate and purify the medical profession, and are bitterly opposed to whatever may in any way tend to harden the heart of the profession.

The difference between the physician and any other man who makes a great discovery, is that whatever a physician discovers is always for the purpose of

prolonging life, curing or alleviating pain, and disease, and those discoveries cannot be concealed without permitting pain or disease to exist that could have been removed.

ON ANTI-PARTUM SEX GUESSING.

Frequently one reads, in the various medical journals that come to hand, of some new and certain method by which the sex of the fœtus *in utero* may be foretold. Exactly what benefit is to be derived from foretelling the sex of the coming child it is difficult to imagine—unless it be the elevation of the prophet physician in the eyes of the expectant parents. At any rate many old midwives, of both sexes too, have been busy over this problem for many years, and although many “such methods” have been advised, none have ever been shown to be successful. It seems that “all signs fail in dry weather”—in obstetrics, as well as in agriculture, this is a good axiom.

Of the various means proposed whereby the sex might be determined prior to birth, the first suggested by Frankenhauser, has received most attention. It depends upon the supposed difference in rapidity of the fœtal pulse in the male and female, the former having the slower cardiac action, as a rule. Frankenhauser claimed by this method to have correctly predicted the sex in fifty consecutive births. Steinbach and Devilliers also successful in this prediction, which were based upon this method. Others attribute the variation of the fœtal pulse rate to the varying size of the child, and Dr. Cumming, of Edinburg, calls attention to the fact (?) that male children are usually larger than females, and consequently the heart action is likely to be slower.

Several years ago the writer had an opportunity to collect from the case books of the Philadelphia Hospital the record of 100 births, in which the fœtal pulse rate in each case had been carefully taken; and later the weight and sex of the child had also been set down. There were, curiously enough, just fifty of each sex; the average pulse rate was 143. But had any one attempted to foretell the sex of these children by counting on

males with a slower, and females with a faster pulse than the average, he would have missed more than half of his guesses.

In the great majority of instances, as in this series, the fœtal pulse will be found to range between 140 and 145. In the above cases no relation was noted to exist between the weight and the pulse rate. The slowest recorded was 124 and this, as were four out of five in which the rate was below 130, proved to be of the masculine gender. And also, on the other hand, thirteen out of sixteen, in which the pulse rate was above 150 were girls.

It would, therefore, appear that a decided extreme in the fœtal pulse rate might serve to indicate the sex of the unborn child. But, upon the whole, it would be safer and better for the practical physician to relegate the art and practice of anti partum sex guessing to the domain of the monthly nurse.

Of far greater importance is the fœtal heart beat in determining the position of the child, and there are few *medical sounds* more pleasing to hear and reassuring, than the soft and muffled tick which encourages the weary doctor during a prolonged effort to terminate a difficult accouchement.

THE INDICATIONS FOR THE USE OF THE OBSTETRICAL FORCEPS AND HOW TO USE THEM.

Prof. T. G. Thomas, of New York, in his lectures on obstetrics, summed up the indications for the use of the forceps as follows, viz.:

- 1st. To supply force.
- 2d. To overcome obstruction.
- 3d. To hasten delivery.
- 4th. To alter position of the head.

These indications cover the whole field for the use of the forceps. The first indication is called for nine times out of ten in powerless labor. The pelvis and passages normal, and the fœtus normal, simply additional force required to accomplish the delivery.

In the second indication there is obstruction in the pelvis, or the passages, or in the fœtus. The “pains” may be normal and energetic enough to deliver the fœtus, if there was no obstruction.

The third indication is called for chiefly in convulsions and hemorrhages.

The fourth in a faulty position of the head of the fetus; and also where there is a contracted antero-posterior diameter where the head does not enter the pelvis on account of it, but where there is plenty of room in the oblique diameter and a sufficiently roomy outlet.

To use the forceps with the greatest safety to mother and child we must imitate nature. Anæsthetize your patient, apply your forceps and then remove the chloroform until a "pain" comes on, then give chloroform again and make traction with the pain for from one to two minutes and then let up *entirely* so as to take all pressure off of the child's head, and wait until the next "pain" comes on, which you can always tell even if the woman is sleeping, by seeing the handle of the forceps move when the "pain" comes on, and she will rouse up then.

Always give the chloroform during the traction, and *only* at that time. *This is a rule with us*, although circumstances might occur which might cause us to act otherwise. By making traction during a "pain," and giving chloroform at the same time, and then a period of rest, you give time for the parts to dilate, and are not apt to have any rupture. When the head has been brought down low enough to reach the forehead with two fingers in the rectum, we remove the forceps, and with two fingers in the rectum, lift the head towards the symphysis pubis until we put the perineum on the stretch, until it seems as if it could not stretch any more without a tear. Then we let up for a few moments and then continue in the same way until it is delivered.

When the head of the child is at the inferior strait of the pelvis, we are not in the habit of moving the woman from the position she is occupying in the bed, because the traction is made in the axis of the outlet of the pelvis and there is no necessity for moving her. Of course if you apply the forceps at the superior strait of the pelvis, then you will have to put her across the bed and bring her hips well to the edge of the bed, in order to make your traction in the axis of the superior strait.

We are in the habit of applying the left hand blade first. Sometimes there is some difficulty in locking the blades.

When that is the case, the blade first introduced, push the handle back towards the coccyx or sacrum and you will find it will go higher up into the uterus. Do the same thing with the other blade and you will find they then lock with ease.

If we were asked how the most harm was done with the forceps, we would state without hesitation that it was due to *continuous* traction after their application and next to that traction in the wrong direction.

We are unalterably opposed to letting women suffer unnecessarily, because their ancestors did so. Hours of agonizing pain can be saved the woman in "labor" when she is in the hands of a skilled obstetrician.

The forceps when properly used are the greatest blessing ever bestowed on the parturient woman.

DRINKING WATER THE SOURCE OF TYPHOID AND MALARIAL FEVER.

Typhoid fever was once prevalent in Tulare City, California, to a great extent. It was, perhaps, as common as in many localities in the east. This was in the days when the old fashioned well was in use, and also when the town was smaller and the necessity of drainage was not so great. As the town grew the people saw the need of a system of water works. As there is no water course near, they had to bore wells. These wells are 1100 feet deep, and are lined with galvanized iron water proof pipes. The pipes completely shut off all surface water, and the water is as pure almost as distilled water. The town is so level, it is impossible to drain without great expense, and consequently the sewerage lies in cesspools under the ground. Notwithstanding this there has been no typhoid fever in the town since the construction of the present system of water works, except in those instances where the old surface wells were used. There is also very little malarial fever, although the country around is flooded with ditch water brought in for irrigating the land. The writer of this would infer that pure deep well water, uncontaminated with surface water, is one of the greatest safe guards against typhoid and malarial fever.

The town of Visalia, California, is

situated in a swamp, and its inhabitants in an early day were sorely afflicted with malarial and typhoid fevers, but since the construction of deep water works, it is as healthful a country as any place on earth. The surgeon can irrigate his wounds with the water of these wells without boiling it, and obtain healing by first intention. This has been demonstrated in hundreds of instances, and there has been no supuration. Indeed, a useful lesson is to be learned by this, and a lesson which can not fail to be very profitable to all people of the United States, if they would heed it.

SECRETARY OF HEALTH.

The health of the nation and the saving of human life is paramount to all other questions, and deserves a national consideration.

No foe to the government is so wide spread in its effects as that which attacks a nation's health, permeating all parts of the social and political structure. Its danger cannot be exaggerated. Empires have fallen because of neglected moral physical laws of health.

Sickness brings weakness and poverty. Health develops strength and wealth. Therefore public health is of great commercial value.

That which obstructs business and sacrifices lives that are valuable to the state, is worthy of earnest attention.

Epidemics, though confined to our section of the country, effect the life and finance of the whole nation.

Millions are given for the advancement of commerce, thousands spent in the interest of agriculture, and they are deemed worthy a place in the councils of the nation while that which paralysis trade, wastes strength, causes loss of labor and its earnings is neglected.

In this enlightened land there are annually sacrificed to preventable disease, two hundred and fifty thousand human beings.

War with all its dread calamities and horrors, does not bring such desolation, suffering and despair as disease. And yet millions annually flow from the treasury for the maintenance of army and navy, and two cabinet officers faithfully watch their interests.

While thousands in danger of sickness and death, cry in vain for justice.

The time of temporizing has passed, make-shift ways must give place to the practical and scientific. The needs of the hour, demand a concert of action against disease, with a well equipped army of assistants, and a master-mind at Washington to guide the attack. As we near the close of the nineteenth century, let the united medical profession, with a full realization of its necessity, by a power that shall place in the national council one whose scientific eye shall ever watch for threatened danger.

Then will the dawn of the new century find us a civilized nation in all our advancing glory, ready to meet the coming generations with an untarnished honor.

SOME REMINDERS IN TREATMENT AND DIAGNOSIS.

A patient upon entering the office, the physician should notice carefully his gestures and movements. Notice his complexion, the condition of his skin, whether it be moist or dry; odor of perspiration; also the appearance of his eyes and teeth; a white chalky color of either may indicate scrofula, syphilis, etc. Small white teeth and wasted gums, phthisis; the characteristic appearance of the finger nails in phthisis is not to be overlooked. Puffs under the eyes may mean heart trouble or Bright's disease.

Notice how he protrudes his tongue; if he puts it out pointed, with sharp and quick jerks, it means nervousness. If on the other hand it is flat and flabby, passive constipation.

Enquire into his family history if you think his case in any way serious.

Never ask a patient "what's the matter?" ask him what he complains of.

Never suggest anything to your patient.

Examine his urine, if the nature of the case leads you to suspect renal trouble. Note color, odor, etc. A light color indicates phosphates; if dark it may indicate blood. A milky color will lead you to suspect pus or mucous.

Note its reaction and specific gravity. A high specific gravity indicates sugar, while a low specific gravity albumen.

Temperament must be considered in the treatment of disease.

Whatever organ may be diseased en-

deavor to remove the cause and put the part to rest, and never prescribe a drug that masks the symptoms of a disease.

In the presence of numerous patients always look cheerful.

Never confirm your diagnosis on only one symptom.

Habit has a wonderful effect on the race. In treating old people respect habits and make haste slowly.

No effect is the result of a single cause.

Make elimination the key-note of your practice in the treatment of inflammatory diseases.

To sum up. The points to be carefully considered in the treatment and diagnosis of disease are: Race, hereditary tendencies, habits, age, education, superstition, religion, external surroundings, temperament, air, soil, water, humidity, etc., etc.

GALL STONES WITHOUT JAUNDICE.

Jaundice is usually supposed to be an inseparable concomitant of gall stones, where it is absent, the pain arising from them is frequently attributed to many other causes, colic, peritonitis, perforation of stomach, or bowels, renal calculi, &c. Not infrequently the pain though severe, produced by gall stones, is of short duration from the fact that the stones pass out of a small into a larger duct, where it causes no pain and gives rise to no obstruction, since it has not remained in the small duct long enough to cause jaundice and causing no obstruction in the larger duct. We have a severe but brief gall stone colic without a trace of jaundice. It is supposed that a jaundiced tint of the skin does not appear in less than 60 to seventy-two hours, after complete occlusion of the bile duct has taken place, though highly colored urine, and clay colored stools may appear much earlier. Pain produced by gall stones without jaundice is put down sometimes as cramps of the stomach, and more recently the popular term gastric neuralgia, the suddenness of the appearance, or abatement, of the pain forming the opinion. Gall stones always produce pain by pressing living tissues, walls of the duct, intestines or anything else, never producing jaundice only when the natural flow of bile is impeded through its natural channel. This is done in two situation,

only, first by obstructing the hepatic ducts preventing the secreted bile getting into the intestines, also into the gall bladder; second, blocking up the bile duct thus preventing the secreted bile from flowing into the intestines from the liver, also preventing the stored up bile from reaching the intestines, from the gall bladder.

The lodgement of a stone in the cystic duct can in no possible way produce jaundice; thus we have a true explanation, why gall stone colic exists without jaundice. Gall stones again may be firmly impacted, in the common bile duct, and yet totally fail to induce jaundice, not depending so much on the size, as on the shape of the concretion.

FOOD INSPECTOR FOR CHARLOTTE.

During the past few years the milk consumption of our city has multiplied to large proportions and we believe the occasion has arrived for the institution of some steps in the form of food inspection for the community. We now consume several hundred gallons of milk daily and no measures have been taken by the authorities to ascertain whether the supply be either adulterated or polluted. Medical science as is well known, recognises in polluted milk an important agency in the causation of disease. This influence is unmistakable in the history of typhoid fever, diphtheria and tuberculosis. Expert examination has moreover demonstrated that the cattle of the country at large is infected by tuberculosis to a degree of ten per cent. of the whole number.

Such being true, and with no reason to conclude that the animals of this particular section are exempt or that they differ in this respect from those of other regions. We believe that the circumstances demand the attention of our officials and that some measures should be inaugurated to organize and equip a department of food inspection for at least milk and meat. The stables, number of animals housed together, the condition of their health, their food and water and such other agents as enter into the milk supply should be carefully examined into.

The water used in cleansing the milk cans, bottles and other utensils connected with the business should be carefully

inspected and approved or condemned as the case may warrant.

Whenever a milk consumer so desired, the health authorities could furnish him with information concerning the surroundings and methods of any particular dairy. No dairyman should be permitted to sell or deliver milk in the city limits unless he had the certificate and approval of the milk inspector. These together with such other details of the business as may arise would very soon succeed in giving the city wholesome and pure milk supply and thereby do away with any menace to health that might originate in impure milk. We commend to our city authorities this suggestion and trust

that they will see proper to make these necessary arrangements and put them into operation at once. In respect to the meat killed and offered in the markets the same system of inspection should also be applied. No swill fed or diseased meat should be killed. The inspectors certificate should be obtained for each carcass before it is brought into the city. This applies to hogs, sheep, and all other meats.

VACCINATION.

As the eighteenth century was drawing to a close, it flashed before the world a brilliant discovery.

For twenty years an earnest patient researcher after truth had been warming a spark into a glow, that was to burst forth illuminating the darkness by promised freedom from the most dreaded of all diseases, saving thousands of lives, giving protection from disgusting disease and death, and making the name of "Jenner" immortal. Living millions owe their existence to his untiring perseverance, with his gift of vaccination small pox ceased to be king of disease and man became its master saying, "thus far shall thou go and no further."

Since its origin away back in the dark ages, this monster has devoured millions of lives. In times past an army of men, women and children, five hundred thousand strong have annually been sacrificed by this destroyer. Three million and a half died of this disease in Mexico in 1507, millions perished in Brazil in 1563. It made its appearance in the United States with frightful mor-

tality in 1649, and carried off thousands upon thousands in Russia in 1812.

Today advancing civilization gives no excuse for the wide spread epidemics of this disease, for vaccination having stood the test of a century has proven a weapon of sure defence.

In the vaccinated German army of the France Prussian war, there were only two hundred and sixty-one cases of small pox, while it attacked over twenty-three thousand of the unvaccinated French.

With an enforced law compelling vaccination during the first years of life, to be repeated at the age of twelve; Germany has lowered her death rate from this disease to 1.7 per hundred thousand, and in 1890 there were only 1.18 cases to each million population.

A careful review of the mortality tables of small pox show a difference in favor of vaccination of 37.78 per cent. With this great cloud of facts before us, it seems beyond comprehension that men living in this enlightened age should doubt the efficiency of vaccination, and yet this friend of mankind has suffered insult and abuse, and been so maligned in the community where it was born that as it neared its centennial birthday, as if in punishment for their hardness of heart, and to make them acknowledge it as a gift divine, the king of terrors broke loose with unusual violence, and was not subdued, until, repenting they turned from the errors of their ways and sought its ever ready help.

HEART TONICS.

The assertion has been made that valvular lesions of the heart leading to incompetency, is amenable alone to the rest treatment, and that digitalis is powerless for good unless used in conjunction with this treatment. This statement needs to be modified. While it is beyond question that the rest treatment will enable the circulatory organs to recover their lost equilibrium and cause the engorgement of the venous system to give place to a proper distribution of the blood and as a result the general nutrition is restored, the effusions in the various organs and cavities will disappear and the symptoms abate. On the other hand digitalis is also simply and alone, capable of effecting the same changes and

mechanism and bringing about normal conditions. Digitalis has an undoubted and direct effect upon the heart muscle and capillaries and improves the elasticity and power of both. The important factors in the circulation through which nutrition is sustained and controlled is the heart and capillaries. Under the influence of digitalis circulating in the blood and in contact with the myocardium, the heart contracts more perfectly, empties itself more completely and sends a larger mass of blood through the arteries at each pulsation. It also stimulates locally, and through the mechanism of the vaso-motor system the capillaries, causing contraction of the latter, the result being that the blood is dammed back into the arteries, the pressure of the fluid rises and the heart, according to Marey's Law, beats slower and stronger. The result of this is to improve all the secretions of the body, the nutrition of the tissues gets better and the functions show corresponding changes. As the blood accumulates in the arteries the venous system is relieved of its engorgement, the equilibrium between the two is restored and the drop-sical effusions disappear. The mechanism of the rest treatment and the action of digitalis is very analogous, if not largely the same. Under digitalis the heart is slowed—rested—the diastole, the period of blood supply or nutrition to the heart muscle—is prolonged, these together with the changes in the general nutritional condition, explain the curative and beneficial action of digitalis upon those conditions which follow upon incompetency of the heart action. Of the method of its administration, the doses and intervals are each important alike. Properly used digitalis is one of the most valuable of all medicines.

PHOSPHATE OF SODA IN JAUNDICE.

In malarial communities cases of jaundice are nearly always attributed to malaria, but in the majority of instances it is probably not due to that cause. If it were quinine would be beneficial. If no periodicity or other symptom characteristic of malarial infection is present in the cases of icterus, the latter is due, in the majority of instances to an inflamed condition of the gall duct or the mucous

membrane of the duodenum and œdema of the latter and a consequent closure of the ductus communis choledicus, as a result of duodenal indigestion, with its resultant fermentation.

A diet of skimmed milk, as recommended by Prof. Bartholow, and the use three times a day of a teaspoonful of phosphate of soda will effect a cure. The phosphate of soda does not only relieve the odematous condition of the intestines and bile ducts, but prevents inspissation of the bile and a resulting formation of gall stones.

The writer opposes large doses of calomel in these cases, because he has seen large doses of calomel produce jaundice in many instances. It is said that calomel acts on the liver (if at all) by irritating the mouth of the hepatic duct, thus causing a flow of bile by reflex action. If so, only small doses, which would not irritate too much, would be indicated, and large doses would tend to increase the trouble.

The use of phosphate of soda is so pleasant and successful, that those who have tested it, will hesitate to use anything else, especially a remedy, the continued use of which, like calomel, is liable to do great harm, aside from any effects that might follow its use in the condition mentioned.

The cases of jaundice due to duodenitis treated by the writer with phosphate of soda run into the hundreds, and the success obtained, has given him great faith in the remedy.

In thus praising this remedy, he has no reference to those cases of icterus caused by mechanical obstruction, such as by tumors, worms, etc.

CONSUMPTION.

Consumption, the great curse of mankind is with us still. So far man's best efforts to conquer this disease by means of therapeutic weapons have proven a failure.

Though disappointed in the tuberculin of Koch, and waiting for Paquin and Klebs to prove their theories facts, we have a rational treatment in hygiene and climate.

Increasing strength seconded by nature, gives man wonderful recuperative powers, aiding him to throw off tubercu-

losis and make a spontaneous recovery, is the information gleaned from the autopsies. Good pure air and sunshine with hygienic care and surroundings, will cure more consumption than any yet discovered therapeutic agent.

From home and across the sea comes encouraging reports of mortality lessened under strict principles of hygiene, though climatic influences favored the disease, with a salubrious climate to aid. We might rightly expect far better results.

Natures great sanitarium is the warm dry climate of the higher altitude, with its freedom from microbes, and excess of ozone, where the diseased lungs are bathed in an antiseptic atmosphere, expanding the chest, enlarging the air vesicles, increasing the number of red blood corpuscles and improving the circulation.

To give success a better chance, the patient must not be left to the indifferent care of the average hotel or boarding house but a wise guardian should control all his ways of living, under the physicians directions, seeing that he has proper nourishment, comfortable accommodations, pleasant surroundings, cheerful company, diverting him with interests out side of self. Watching his digestion, controlling his exercise, selecting his clothing; by kneading and rubbing harden his muscles, keeping the skin in a healthy glow by cleanliness and friction, while guiding the invalid along the pathway that leads to better health and longer life.

We may wait with expectancy for the full fruition of our hopes which some earnest researches shall bring to man kind; the rich gift of freedom from this destroyer.

THE PHYSICIAN OF TO-DAY.

The sphere of the physician is broadening. The vast plain of science lies before him, his opportunities for usefulness increase with the advance in medical knowledge. In his divine calling he loses sight of self and works for the improvement of mankind, wielding a wonderful influence upon civilization, correcting the errors of the past, and perfecting theories for the future, superstition no longer blocks his way. Truths unknown to his fathers are living facts to him. The medical man of to-day is a humane philosopher,

dealing with live issues, drawing from natures store house remedies that will best combat sickness and death. With the honor of the profession in his keeping, he seeks for greater discoveries, his investigations develop his character, broaden his mind, overthrow bigotry and free him from jealousy, making him earnest and untiring in his unselfish work for the public weal. His trials and disappointments are a school of discipline, purifying and ennobling, making him strong and courageous, kind and sympathetic, a wise adviser and counselor, a bulwark of strength to those who lean upon him.

Keeping abreast with the swiftly increasing knowledge in arts and sciences in every department in life that surrounds him, with constant thought for man's welfare, he reaches into the future striving to pluck more stars from its firmament that he may add greater luster to his profession.

THE STATE BOARD OF HEALTH CONFERENCE.

The recent meeting of the Board of Health in Charlotte cannot be overestimated in the great good to the community which is likely to come out of it. The public very generously turned out to hear the papers read and participated in the discussions. The educational value of such occasions is very large and economic results in the prevention of disease is well nigh incalculable. We were especially impressed with the interest manifested in the papers of Dr. R. H. Lewis and Westray Battle, the former dealing with the milk problem and the latter, that of alcohol. Public interest in these matters, so paramount in the general welfare, is always commensurate to the amount of information possessed concerning them. Let it be fully known that dangers positively lurk in certain conditions and people will learn to avoid them. Ignorance on matters of hygiene and sanitation is the greatest obstacle to progress. Cooperation on the part of the people will follow as a necessary sequence of knowledge.

When it is fully understood that infectious disease is avoidable disease the masses will act with the sanitarian. To bring these subjects directly before the

public and let them know something of the causes, conditions and means of preventing disease will but result in great good. We congratulate the Board upon their meeting and trust that it will soon come again.

PHYSICIANS AND POLITICS.

There seems to be a growing tendency among physicians to mingle in the affairs of the political world. With more and more frequency physicians may be found presiding at political gatherings and even engaged in active canvassing among their friends and patients in the interest of favorite candidates. Physicians may often be found now-a-days giving up a good deal of their time to participation in party primaries and the deliberations of conventions. Neither is it an unheard of thing to find the doctor posing as a candidate, with all the perplexities surrounding him which ever fall to the lot of the candidate.

It is the privilege, and indeed the duty, of the physician, in common with all American citizens, to take part to a certain extent in the affairs of government, national, State and local. He no doubt should give such attention to matters of legislation which affect him, as well as all others, as to be able to cast his ballot intelligently. It would seem, however, that a note of warning may not be amiss, lest the doctor should degenerate into the ward politician and find himself immersed deeply in the muddy pool of politics.

There is a wide gulf between the practical politician and the man who has given his life to the study of how best to relieve human suffering and prolong life. The two callings can not be successfully combined. There is no physician in active practice who will find time for any considerable political work if he keeps up his reading and reads up his cases, and if he does not then he is not doing all his duty to those who employ him and depend upon him. Merely from a business standpoint, the hostilities and bitter feelings which are engendered in party and factional politics do not have a tendency to increase the income of the physician subjected to such influences. Physicians should not forget that they must obtain their patients from all classes, from all

religions, from all parties, from all factions. There is, however, a more important consideration than this. The office and calling of the physician is a noble one, and every physician owes it to himself and his profession to so regulate his life that a high intellectual and dignified standard may be maintained in the profession of medicine. There is danger that this standard may be lowered if physicians shall become ambitious to be known as workers and leaders in politics.

DR. W. F. DREWRY, of Petersburg, Va., has been appointed superintendent of the Central State Hospital. Dr. Drewry has been the assistant superintendent for ten years or more. He is an accomplished physician and an expert in the treatment of the insane. His qualifications, therefore, for the important and responsible position to which he has just been elected—that of superintendent of the largest asylum in Virginia—are all that could be claimed. Dr. Drewry is the author of many valuable contributions to science on the treatment of insanity, which have attracted wide notice among the medical fraternity.

BOOK REVIEWS.

THE PRACTICE OF MEDICINE. By HORATIO C. WOOD, A. M., M. D., LL.D. (Yale.) Prof. of Therapeutics and Chemical Professor of Nervous Diseases in the University of Pennsylvania and REGINALD H. FITZ, A. M., M. D., Harsey Prof. of the theory and practice of Physic in Howard University, etc., Philadelphia: J. B. Lippincott Company 1896.

This work is a departure from ordinary books upon the practice of Medicine. It attempts, as the preface states, to treat the subject from the pathologic and therapeutic standpoint. The articles are signally brief yet they go right to the center of the topics and leave off the superfluous in a marked manner.

No space is wasted by the pernicious habit of "padding" so characteristic of the practices of many authors. The articles treating of nervous affections are specially good. The infectious diseases are ably handled and satisfactory to modern therapeutic demands. Antitoxin is warmly endorsed when it is stated, "its value has been so far proved that it should be used in every case of diphtheria with as

much positiveness and determination as quinine would be in malaria." In this connection it quotes Welch and others to show that Antitoxin has reduced the mortality of diphtheria one half. In the part devoted to typhoid fever the modern auxiliaries of Brand, intestinal antiseptics and other forms of treatment are all considered with due proportions and weight. There is a return to the older views in the recommendations in regard to alcohol in this disease. The author states that, "Alcohol in some form according to our belief, should be used in every case of typhoid fever from the beginning, unless there be some very strong moral reason for refusing it, as when there is a distinct heredity towards drunkenness. As to the amount he writes as follows: "In the first week of an ordinary case of typhoid fever a dessert spoonful of whiskey in a tumblefull of milk is a full dose, one ounce or two ounces being given in the twenty four hours; in the advanced stages of the disease twelve or even fourteen ounces of whiskey a day are sometimes necessary.

The treatment of tuberculosis in its various forms is very exhaustive. There is probably no recent work that goes into the varieties of this disease as the present one. There are new and valuable ideas all through the article. Taken in its entirety the book is unique in character and will furnish much assistance to the active practitioner who cannot spare the time to search through long and prolix treatises to get the information that he desires. It is an aid to the physician rather than the student.

A TREATISE ON OBSTETRICS. For Students and Practitioners. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one very handsome octavo volume of about 600 pages, with 217 engravings and 30 full-page plates in colors and monochrome. Cloth, \$5.00; leather, \$6.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1896.

The student entering upon the study of Obstetrics, or the practitioner desiring a handy reference volume, will find himself well equipped in the possession of this book. The work is divided into the following seven sections:

Section I. Pregnancy and Labor. Section II. Pathology of Labor. Section

III. Obstetrical Operations. Section IV. Abortion—Extra-uterine Pregnancy—the Puerperal State. Section V. Infancy in Health and Disease. Section VI. Diseases of Infancy. Section VII. The Jurisprudence of Obstetrics.

Each section is divided into numerous chapters. In this volume the author has exercised the virtues of brevity and comprehensiveness. It is a safe and valuable guide to the whole art of Obstetrics in its most modern development. The author is widely known as a teacher, writer and obstetrician of unsurpassed ability. Being fully and thoroughly acquainted with foreign literature has enabled him to place at the command of his readers the best material desirable from the vast sources of obstetrical knowledge in the old world, and his own ripe experience and metropolitan facilities have been equally well utilized in the preparation of the volume at hand.

The section on Pathology of Labor is most complete, and the difficult subjects of this department are most lucidly handled. Also the section on Obstetrical Operations is a very valuable one, giving the many intricacies and difficulties in obstetrical operations. In one sense it is more comprehensive than ordinary treatises, in that it deals with cogent subjects best handled in close connection with their obstetrical precedents, such as the repair of lacerations and injuries, the care of the mother, of the infant, jurisprudence of midwifery, &c., &c.

The work contains many exceptionally rich series of engravings, and the book is likewise embellished with a number of most instructive colored plates. The mechanical execution of the book is most excellent, the paper of superior quality, and the binding both elegant and durable.

A TEXT-BOOK OF MATERIA MEDICA, THERAPEUTICS AND PHARMACOLOGY. By GEORGE FRANK BUTLER, Ph.C., M. D. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896.

No branch of therapeutic science has, perhaps, been more neglected than a practical acquaintance with the nature and uses of materia medica, their origin, potency, and characteristic value, as well as their physiological action, and the incompatible and synergistic agents upon which their efficacy often large depends.

I am glad this book has been written. It gives to the student a clear, concise

and practical text-book. The author has arranged the work from a synthetical classification of drugs, based upon therapeutic affinities. The first part of the book is taken up with Introduction, Pharmacology and General Therapeutics, Classification of Medicines, Administration of Medicines, Definitions, Weights and Measures, Pharmaceutical Preparations. After a clear discussion of these very important branches, the work is divided into three great classes. Class I. Disease and Medicines; Class II. Antiseptics; Class III. Symptom Medicines, with a final discussion of Topical Remedies, Prescriptions, and a good Index.

We have no hesitation in recommending this book to the favorable consideration of the profession, and more especially to that of the general practitioner, as a valuable aid in every day work. The publishers have presented the profession a neatly bound and faultlessly printed volume.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BARTHOLOW, A. M., M. D., LL.D. Ninth Edition, Revised and enlarged. New York, D. Appleton and Company, 1893.

This is the ninth edition of this work which constitutes a remarkable record for any book, and, besides an evidence that medical teachers and practitioners appreciate a work closely adopted to their requirements. Bartholows *Materia Medica* is probably the best known of any in print today. Prof. Bartholow is well known as a progressive and able Therapeutist and teacher, and his ability in both directions is attested in the highly original plan of this work, as well as its execution. One beautiful feature about Bartholows *Materia Medica* is its systematic arrangement. You can always find every drug in the United States Pharmacopoeia considered, and many others besides, and under each you will always find this systematic arrangement. This one feature alone has been greatly instrumental in giving this work such universal patronage. This work has always been famous for its practical therapeutics and their ready application. Bartholows *Materia Medica* must be regarded as a credit to its maker and welcomed by the students and practitioners of the art which it represents. The mechanical portion of the work has done been in the

excellent way which we always expect from the publishers.

A TEXT BOOK OF SPECIAL PATHOLOGICAL ANATOMY. By ERNEST ZIEGLER, Prof. of Pathology in the University of Fruburg. Translated and Edited from the eighth German Edition by Donald MacAlister, M. A., M. D., and Henry W. Cattell, M. A., M. D., sections I VIII, New York. The MacMillan Company 1896.

This work contains 575¹ pages with an index of subjects of 32 pages. This volume considers 8 sections. The second volume, containing the sections on the alimentary tract with the liver and pancreas, the respiratory and genito urinary systems, the eye, and the ear, is already in the press and will shortly be published. The different sections in this volume are considered as follows: Section I, Blood and Lymph. Section II, The Vascular Mechanism. Section III, The Spleen and the Lymph Glands. Section IV, The Osseous system. Section V, The Muscles and Tendons. Section VI, The Central Nervous System. Section VII, The Peripheral Nervous System. Section VIII, The skin.

Each section is divided up into different chapters and under each chapter the diseases peculiar to that chapter are considered with their pathological description. The illustrations are exceptionally fine. The last section which is devoted to the skin is well worth the entire price of the work. The book serves a most useful purpose. It is published in first class style, characteristic of the MacMillan Co.

MOTHER, BABY AND NURSERY. A Manual for Mothers. By GENEVIEVE TUCKER, M. D. Boston: Roberts Brothers. 1896.

The author in presenting this book furnishes a practical summary of the Infant's hygiene and physical development. It will be a guide to mothers, particularly young and inexperienced ones. It teaches the mother to understand her babe, to feed it properly, to place it in healthful surroundings, and to watch its growth and development with intelligence, and thus relieve, in a measure, the undue anxiety and nervous uncertainty of a new mother. The book is not intended to take the place of a physician, but rather to aid the physician in teaching the mother to care properly for her babe when well, that she may better nurse it when sick.

THE MEDICAL NEWS VISITING LIST for 1897. Weekly (dated, for 30 Patients): Monthly (undated, for 120 patients per month). Perpetual (undated, for 30 patients weekly per year): and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Philadelphia and New York: Lea Brothers & Co.

The Medical News Visiting List for 1897 has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses. It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers, and the Ligation of Arteries. The classified blanks (190 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. The selection of material in the text portion and the arrangement of the record blanks are the result of twelve years of experience and special study. Equal care has been bestowed upon the mechanical execution of the book, and in quality of paper and in strength and beauty of binding nothing seems to be left wanting. When desired, a Ready Reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and which will save many-fold its small cost (25 cents) in the economy of time effected during a year. In its several styles The Medical News Visiting List adapts itself to any system of keeping professional accounts. In short, every need of the physician seems to have been anticipated in this invaluable pocket companion.

PRACTICAL NOTES ON URINARY ANALYSIS. By WILLIAM B. CANFIELD, A. M., M. D., Lecturer on Clinical Medicine, University of Maryland, etc., etc. Second Revised Edition. 1896. Geo. S. Davis, Detroit, Mich.

It has afforded us much pleasure to review this little work on practical urinalysis. It has not only been a pleasure, but we feel that we have derived much benefit from its perusal.

It is very important that every physician should have a knowledge of urinalysis. He needs it in every case of doubtful diagnosis. This little work is

conveniently divided into seven short chapters, each chapter being written in a most concise and easy manner. The general characteristics of the urine, of course, are given, the quantity, color, odor, transparency, reaction and specific gravity.

Two very interesting and instructive chapters are those which treat of Urine in Disease and Reagents and Apparatus.

We are most favorably impressed with the book, and heartily recommend it to all our physician friends.

DOMESTIC SANITARY DRAINAGE AND PLUMBING. Lectures on Practical Sanitation, Delivered to Plumbers, Engineers, &c. &c. By WILLIAM R. MAGUIRE, of Dublin. Second Edition. 1896. D. Van Nostrand Co., New York.

This book will provide useful instruction not only for plumbers, in the theory and practice of their craft, but also will give to architects, engineers, and others in professional contact with the craft, a wider and deeper appreciation of the importance of domestic sanitary drainage and plumbing, and to induce the public to consider and understand more fully the intimate relation existing between sanitary plumbing and public health. Dr. Pridgin Teale, of Leeds, has rendered good service to the public by stating boldly his opinion; "One-third, at least, of the incidental illnesses in the kingdom are the direct result of drainage defects, and therefore can be, and ought to be, prevented." The book is well printed, well bound, and contains nearly 500 pages. The illustrations are many and good.

AMERICAN STATESMAN. WILLIAM HENRY SEWARD. By THORNTON KIRKLAND LOTHROP. Boston and New York: Houghton, Mifflin & Company. 1896.

This is a good historical sketch of Mr. Seward. The facts and incidents of his life are told very fluently and interestingly. It gives a very good account of some parts of the late war from a northern standpoint. The work is smoothly written, nicely printed and tastefully bound.

A DAILY THOUGHT FOR A DAILY ENDEAVOR. A Christian year book of Courage and Good Cheer. Compiled by ELEANOR AMERMAN SUTPHEN and ELIZA POLHEMUS SUTPHEN. New York. The Baker and Taylor Co., 5 and 7 East Sixteenth Street

This work contains something over 350 pages and fills the purpose for which it was written.

TRANSACTIONS of the State Medical Society of Wisconsin for the year 1896. Constitution and By-Laws.

If we are not mistaken the transactions issued by this Society are the largest that come to our table. This volume seems to be devoted principally to the hygiene of many subjects. The volume contains six hundred pages, and the Society has nearly five hundred names. Dr. Chas. S. Sheldon, of Madison, is Secretary of this Society.

TRANSACTIONS of the Iowa State Medical Society. Vol. XIV. Forty-fifth Annual Session. 1896.

Through the kindness of Dr. J. W. Cokenower we have received a copy of these Transactions. They contain a great deal of very valuable reading matter, some of the papers read being exceptionally good. The volume is very creditably bound and neatly printed.

LITERARY NOTES.

"AS MAINE GOES, SO GOES THE UNION," The November Forum will contain:—A trenchant article, by the Hon. Thomas B. Reed, whose drift is perhaps sufficiently indicated by its title. Mr. Edward P. Clark under the title "The 'Solid South' Dissolving," contributes an interesting study of the way in which the South grew from normal divisions into solidity, and the way in which that solidity is now disappearing—a very timely and suggestive paper. Mr. E. W. Codington, a business man of Florida, discusses the Money question with uncommon lucidity, and suggests a plan for planting our financial system upon a sound basis. Dr. W. K. Brooks, of John Hopkins University, an eminent Zoologist, writes on "Woman from the Standpoint of a Naturalist," discussing in particular the zoological aspects of female suffrage. Mr. W. K. Stride in a striking article entitled "The Immediate Future of America," advances a very original plan for solving Eastern Question. Under the caption "Shall the Frontier of Christendom be Maintained?" Mrs. Julia Ward Howe discusses the same problem. Mr. J. Gennadius, the distinguished Greek diplomat whose admirable series of articles in the Forum on recent archaeological discoveries in Greece has aroused so much interest, continues his recital

with a brilliant and intensely interesting account of the exploration of the Sanctuary of Apollo at Delphi, and of the discovery—the most important yet made—of original specimens of Greek music, Mr. Henry D. Lloyd in a study, entitled, "Emerson's Wit and Humor" shows the Sage of Concord in an entirely new light—that of a wit of the highest order. The article fairly bristles with Emerson's rare humor. Mr. Willam Ferrero, a rising young Italian criminologist, and the author, with Prof. Lombroso, of "The Female Offender," contributes a thoughtful and suggestive paper, entitled "Work and Morality." Prof. Ferrero contends that the capacity for methodical work is the very essence of morality—the quality upon which all others depend. Prof. Taussig, who occupies the chair of economics at Harvard, writes very plainly-spokenly about "Bond Sales and the Gold Standard." A comparatively new but most deserving charity is that of District Nursing. The Boston Instructive District Nursing Association was the first organization in the United States to begin this work, and Mrs. Mary K. Sedgwick, its secretary, describes the workings, results, and the cost of its eleven years' work in the city of Boston. Other articles in the November Forum are: "The Future of Spelling Reform," by Mr. Benj. E. Smith; and "Another Phase of the New Education," by Miss Gertude Buck of the University of Michigan.

Thus The Forum sweeps over the whole field of contemporary thought and activity, and presents to its readers scholarly and authoritative discussions of the leading questions of the day by experts in their respective fields.

APPLETONS' POPULAR SCIENCE MONTHLY for November, 1896.—No reader of Appletons' Popular Science Monthly will be likely to complain of dryness in the November number. Bashford Dean, of Columbia University, describes the leading Public Aquariums in Europe, with illustrations, and tells what devices are used to give them a realistic appearance. Prof. A. S. Packard tells about a climb up The Crater of Mount Shasta. In Notes on Bhils, Burmese, and Battaks, also illustrated, Dr. R. W. Shuffldt describes the physical and mental characters of three Oriental peoples. Another

illustrated descriptive article, by Margaret W. Leighton, has the simple title *Shells*. The opening paper of the number, by Prof. W. H. Hudson, of Stanford University, deals with a more serious subject, *The Moral Standard*, its aim being to show the superior reasonableness of scientific ethics. Prof. Edward R. Shaw treats of *The Employment of the Motor Activities in Teaching*, showing how natural tendencies of the child that are troublesome if repressed are helpful when properly directed. Prof. W. R. Newbold gives a scientific view of *Double Personality*, a somewhat extreme depiction of which is familiar to the public in Dr. Jekyll and Mr. Hyde. Dr. Harrison Allen gives the careers, with portraits, of *Two Scientific Worthies*—Sir Thomas Browne and Sir Thomas Stamford Raffles. In lighter vein again are a *A Dog's Laugh* (illustrated), by M. le Vicomte d'Aiglun, and popular *Superstitions*, by Dr. Walter J. Hoffman. Albert Gaudry calls attention to *The Abundance of Animal Life*. Other articles deal with *Science in Wheat-growing*, *Evolution of Insect Instinct*, and teach of the "Deaf and Dumb." There is also a *Sketch, with Portrait*, of William C. Redfield, the American meteorologist. In the Editor's Table the "new" woman, vague psychology, and the abuse of free libraries receive attention, and Prof. Jordan's "sympsycho-graphy" joke in a recent number is explained for the benefit of those who did not see through it.

New York: D. Appleton & Company.
 Fifty cents a number, \$5 a year.

LIPPINCOTT'S MAGAZINE for November, 1896.—The complete novel in the November issue of Lippincott's is "An Interrupted Current," by Howard M. Yost, a new writer with a happy knack of story-telling. The scene is in eastern Pennsylvania, and the action turns on tracing the perpetrators of a bank robbery and their plunder.

"Simon Smith" was the alias of an innocent fugitive from justice in Colorado, who was sheltered by a clergyman of the improved modern type. His tale—from and to the life—is from the pen of the late Dr. William R. Mackay. Le Roy Armstrong, in the sharp western manner, tells of a kind of "Journalism that Pays."

"The Land of the Five Tribes," *i. e.*,

Indian Territory, is instructively described in brief space by Allen Hendricks. Alvan F. Sanborn casts some light on "English Traits," and R. G. Robinson on "Florida Snakes."

"Modern Ancestors and Armorial Bearings," are slightly handled by Adriaan Schade van Western. The "Two Sides" of a long-standing controversy—between editors and those seek to be contributors—are considered by Frederic M. Bird.

Dr. James Weir, Jr., a promising naturalist of Kentucky, finds in some of the animals what he calls, "The Sixth Sense" or homing instinct, which enables them to return promptly to their quarters after an outing. "Bread, Condiments, and Fruits" are discussed in order by Calvin Dill Wilson. "The Wind" is imaginatively treated by William Potts.

The poetry of this number is by Ella Gilbert Ives, Carrie Blake Morgan, and Prof. Charles G. D. Roberts.

One of the oldest and most reliable Magazines published in the United States is *Littell's Living Age*. It has, through its more than fifty years of existence maintained, invariably, the highest degree of literary excellence. The publishers now announce certain "New Features" which will greatly enhance its value in the eyes of every intelligent reader.

The first of these new features will appear in the November issue—to be continued monthly thereafter—in the form of a Supplement containing three departments, namely: Readings from American Magazines, Readings from New Books, and a List of the Books of the Month.

This "Supplement," which cannot fail to be of great interest and profit to subscribers, will add about *three hundred pages* annually to the magazine with no addition to its present price.

In addition to the supplement the field of *The Living Age* will be still further extended so as to include, during the coming year, occasional translations of noteworthy articles from the French, German, Spanish and Italian reviews and magazines.

With these improvements and its reduced price, \$6.00 a year instead of \$8.00, *The Living Age* must become more popular than ever. Certainly no family or individual who desires to be acquainted with the best literature of the day in all

its various departments, biography, history, science, art, politics, poetry and fiction, can afford to be without it.

A generous offer to New Subscribers for 1897 is made of all the weekly issues of 1896 published after the receipt of their subscriptions.

Published weekly at \$6.00 a year by

THE LIVING AGE CO.

BOSTON.

The November Atlantic Monthly contains the opening chapters of Colonel T. W. Higginson's *Reminiscences*—the most interesting recollections that have anywhere appeared. Colonel Higginson's career as a writer, soldier, and man of letters, covers the last half century, and there is hardly a man or a movement of that time that he has not been identified with. Colonel Higginson has chosen the attractive title, "*Cheerful Yesterdays*," and the first installment is "*A Cambridge Boyhood*." In it he gives a delightful glimpse of the Cambridge of an earlier time as well as a vivid picture of New England boy life of sixty years ago. His home, his school, and his comrades are described in a charming fashion, and his opening chapter promises much for the installments which are to cover the more mature years of his life.

The *Reviews of Reviews* for November publishes several important and interesting articles on the latest phases of the Eastern Question, especially from the British point of view. Mr. W. T. Stead's survey of the subject, entitled "*The Eastern Ogre*; or, *St. George to the Rescue*," is extremely characteristic and suggestive; the Review also offers a remarkable symposium of current thought on "*What should be done with Turkey?*" as the pressing problem of the hour.

It is our pleasure to commend to our readers *The Laryngoscope*, a monthly journal devoted to diseases of Nose, Throat and Ear, published in St. Louis. Drs. Rumbold and Goldstein, editors. Judging from the appearance of the first four numbers we predict that the better class of general practitioners, as well as the specialists, will find *The Laryngoscope* of great value. We wish the enterprising editors success.

The October number of the *North American Review* may fitly be called a Campaign number. It contains articles on campaign subjects by Speaker Reed, the Secretary of the Navy, Andrew Carnegie, Bishop Merrill of the M. E. Church, Louis Windmuller, and Judge Walter Clark of the Supreme Court of North Carolina. Judge Clark's article is specially interesting as being an authoritative outline of the changes which he and other advocates of free silver would make in the Constitution if Mr. Bryan is elected.

Subphrenic Abscess following Appendicitis.

Dr. Albert H. Freiberg read a paper before the Cincinnati Academy of Medicine, Sept. 14th, 1896, reporting a case of Subphrenic Abscess following Appendicitis, and discussed the pathology of this condition. Subphrenic abscess being for the most part gas-containing has until comparatively recently been mistaken clinically for pyo-pneumo-thorax. The first important advance in diagnosis was the recognition of the fact that the original disease focus may be found in the history of the case, and usually concern some abdominal organ which has perforated or suppurated (stomach, appendix, gall bladder, &c.) In addition to this, cough and dyspnoea (of any consequence) are wanting. Attention was further called to the importance (in the presence of the above symptoms and history) of singultus and pain in the shoulder as points diagnostic of subphrenic abscess; the latter is on the right or left side, corresponding with the location of the abscess.

Subphrenic abscess may be located intra-peritoneally or altogether outside of the peritoneum, and its pathology varies according to its location. In intra-peritoneal cases of appendical origin the pus travels along easily recognizable routes in the posterior wall of the abdomen: most commonly extend to the ascending colon toward the lower border of the liver. A fold of the peritoneum, not previously described, exists here which, when present in a normal degree impedes the progress of the pus upwards; it is, however, frequently imperfectly developed or absent altogether.

In intra peritoneal cases the pus pro-

bably gets to the subphrenum by lymphatic metastasis often than by direct extension.

A peculiar feature of many cases of subphrenic abscess (and of the case reported) is an accompanying serous intrapleural exudate whose exact significance is as yet unexplained.

Subphrenic abscess if left unoperated is almost uniformly fatal, but early incision and thorough drainage reduce the danger of this unpleasant complication to a minimum.

A Statistical Report.

At the recent meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, held at Chattanooga, Oct. 13th, 14th and 15th, Dr. R. H. Hayes, of Union Springs, Ala., one of the Vice-Presidents of that body, presented "a Statistical Report of some of the more recent remedies used in the treatment of tuberculosis, and also gave an outline of the methods of prevention of value as now principally used."

The report embraced the remedies and remedial agents now styled Biological or direct; those that either attacked, arrested and destroyed the tubercle bacillus directly, or that in some way antagonized and neutralized the ptomamic poisons developed by the presence within the system of the specific germ, the tubercle bacillus and "causavera" of the disease. The typical remedies included in the report were those instituted by Koch as "tuberculin," developed later by Klebs as "tuberculoctidin and antiphthisin."

He also gave reports from the use of the "antitubercle serums," such as Hunter's of England, Maragliano and Campana of Italy, Klebs and Paul Pacquin, Karl von Rucke and others of this country; the "nucleins" of Vaughn, "aseptolin" of Edson, and other purely medicinal agents were included; his report embracing the clinical work of these men and also of Drs. Taylor, Ambler, Dennison, Barbour, the report of investigating committee of the New Orleans Parish Medical Society and of many of our most eminent clinicians.

He claimed that the tubercular pathology of the past was purely a constitutional one, and that the older orthodox remedies used was unsatisfactory, the

disease being held as incurable, and its general mortality rate being one-seventh of the world's total of deaths, or 14 or 15 per cent. per 1,000 of population had remained about the same. The biological, cellular or direct pathology instituted by Robt. Koch gave rise to the class of direct germicidal remedies and agents covered by his report, which had in nearly every instance, when properly used in proper doses and properly selected cases given satisfactory results; these clinical reports being *especially* favorable in incipient cases, 1st stage cases, generally so in 2d stage cases, and often beneficial in the 3d or late stages of tuberculosis; the percentage of cures being given, altogether showing a very favorable reduction of mortality from the use of these newer remedies, which were safe and non-poisonous under proper aseptic precautions. "Antiphthisin" was the best, purest and most effective of the remedies and was now being manufactured by Dr. Karl von Rucke, formerly with assistance of Prof. Klebs, at the "Winyah Sanatorium" for tuberculosis, near Asheville, N. C.; they preparing it for the profession alone and at reduced cost.

Dr. Hayes claimed that we should welcome and sanction by clinical trial any of the newer therapy that gave such wholesale evidence of efficiency in this disease. That the sum of the evidence, experimental and clinical, favored the use of agents he had named. The trend of scientific thought, investigation and clinical tests was along the line of sero-therapy for almost the entire list of diseases, and from this field would no doubt come the therapeutics of the future.

His paper gives a full description of the history, physical characteristics, dosage, methods of administration, physiological and pathological effects of the different agents.

He stated that it was generally conceded now by all public health authorities, boards and sanitarians that the chief sources of infection and danger to the public from tuberculosis (to the human family) was from Bovine tuberculosis through the meat and milk of infected animals, and from the dried sputa, dust, the ejaculated sputa of consumptives upon carpets, or floor of public and private apartments, and upon street or pavements. Also that the prevention methods had

been boiled down to the proper inspection, isolation and destruction of cattle, tuberculous meat and milk, and the collection, disinfection and destruction of the sputa of consumptive individuals. This had been more successfully done by the New York Board of Health than any where else. Its method being a system of thorough private and public instruction, inspection and disinfection. They had proven the disease directly communicable, a distinctly infectious disease through those causes and, therefore, entirely preventable. Through the thorough and scientific work of this board the city's mortality rate from tuberculosis had been very largely reduced. Success in the treatment and prevention depended on the proper selection of cases and remedies and thorough, persistent trial and use, while prevention, to be effective, must be absolutely thorough in every detail.

Acne Rosacea.

Dr. A. H. Ohmann-Dumesnil contributes to the Tri-State Medical Journal a very interesting article on Acne Rosacea. The author gives a very good resume of the subject in his usual attractive style. Beginning with a good clinical description of the different phases of the disease he terminates the paper with the recital of a most interesting case of rhinophyma.

We desire to say a few words in regard to the case, as the illustrations before and after treatment certainly show a wonderful result. The patient was a robust man of 72 years, who indulged rather freely in alcoholics, in consequence of which an acne rosacea developed. The nose enlarged progressively, hypertrophy set in and this was of such a marked character that the fibrous tumor mass pressed on the nostrils and prevented respiration. As a result mouth breathing followed. The deformity consisted of three masses or lobes, one central and two lateral, attached at their bases by rather large pedicles. Each lateral mass was somewhat pear-shaped, the central one having the appearance of an inverted pyramid. Taken altogether the mass weighed about two pounds. The surface of the integument was irregular, the opening of the ducts of the sebaceous glands patulous,

and the whole mass felt hard to the touch. It was red and shining and somewhat nodulated in parts. The only thing that could be done was to remove the entire mass by means of the knife, which was accordingly done, the result, to judge from the illustration, being a perfect one. Examination of the portion removed showed it to consist mainly of fibrous tissue. A large retention cyst, containing fatty matter, and nearly a half inch in diameter, was found, besides a number of smaller cysts of the same character.

We have spoken of this case at some little length, as the subject is one fraught with much interest, and in view of the imperfect results which have heretofore been obtained, the technique gives added value to the matter.

Acne rosacea, which is quite difficult to treat successfully, is discussed at length and a number of excellent formulæ and methods are given, which space prevents us from reproducing at the present.

Reports of Some Interesting Cases in Gynecology.

In the October number of the American Journal of Obstetrics, Dr. A. Brothers, of New York, comments on three unusual cases occurring recently in his gynecological practice. In the first case he describes a pessary introduced for prolapsus in an elderly woman, which was worn continuously for two years. During this time the originally soft rubber pessary became as hard as wood and caused ulceration of the vaginal wall with generation of granulative tissue in which the pessary became impacted. Finally an atrophic condition of the vulva, due to the menopause, became superadded, so that the pessary was impacted to such a degree that all efforts failed to dislodge it. At the suggestion to remove it piece meal under anæsthesia, the patient took fright and dropped from observation.

In the second case a salpingo-oophorectomy was done by vaginal section and, at the same time, the retroflexed uterus was freed from extensive adhesions. At the close of the operation hemorrhage persisted, in spite of deep sutures in different directions, so that it became a question as to whether it would be more desirable to perform vaginal hysterectomy

or control the bleeding from above. After tightly packing the wound laparotomy was quickly done, but as no spurting vessels were discovered the wound was immediately closed. The hemorrhage evidently came from torn adhesions. The patient made an uneventful recovery.

Dr. Brothers comments on the unsurgical aspects of vaginal work as compared with similar work done through an abdominal incision.

In the third case, cesarian section was done on a moribund woman, in the eclamptic state, on account of an utter impossibility to dilate a tetanically rigid os externum. The operation was performed quickly and the patient survived eleven hours. Although the uterus was emptied of its contents the convulsive seizures persisted and were ultimately responsible for the fatal result. The case is exceedingly interesting because it is the fifteenth cesarian section on record performed during the eclamptic state.

We appreciate Dr. Brother's reports because they represent unpleasant complications, or results which most operators prefer to keep in the dark for fear of spoiling otherwise brilliant records.

The Surgical Relief of Obstruction of the Common Duct by Biliary Calculi.

At the annual meeting of the New York State Medical Association, held in New York City, October 13th to 15th, 1896, Dr. Henry O. Marcy, of Boston, read an interesting paper entitled "The Surgical Relief of Obstruction of the Common Duct by Biliary Calculi."

He gave a review of his special studies upon biliary obstruction, which commenced in 1876, with detailed reports of cases occurring in 1880 and 1881, where he urgently advised operative procedures for the relief of conditions which seemed otherwise necessarily to end in death. Post mortem examinations showed that the cause of the obstruction was a biliary calculus lodged in the common duct.

Operative interference was refused, since the agreement of the consultants was that it was probable that the obstruction was in the common duct, and that there was no record of any surgical pro-

cedures having ever been attempted for the removal of calculi from it,

Autopsies showed that a surgical removal would have been not only possible, but that the conditions were such that it would not have been especially difficult.

Dr. Marcy's first case of operation occurred in July, 1887, and although not successful in removing the calculus, because of intestinal adhesions, the stone was dislodged and the patient recovered; followed by a short period of relief. Later the autopsy showed that the calculus was in the common duct with a limited range of movement. Afterward Dr. Marcy criticised his operation, believing that the duct might have been opened, and the calculus removed, followed by immediate suture of the wound in the duct, with a reasonable degree of safety.

He gives a detailed history of his first case of successful operation for the removal of a calculus from the common duct, which occurred in his private hospital, Oct. 26th, 1889.

Here the stone was so firmly imbedded that the backward pressure of the bile through the cystic duct had caused the gall bladder to become so enormously dilated, that its contents measured ten ounces. Other methods having failed, the gall bladder was divided with leisons through its cystic portion until the calculus was reached and removed. This was nearly spherical, the size of a large filbert and weighed, when dried, fifty-nine grains. The entire wound in the viscus measured four inches. It was immediately closed with fine tendon continuous sutures in three layers. The first incircling the mucous membrane; the second the entire wall, while the third was taken from side to side as a parallel suture, which when drawn upon evenly intrafolded the peritoneum over the wound, itself completely hidden from sight. The abdominal wall was also closed with tendon in layers and sealed with iodoform collodion without drainage. The patient made an easy, uninterrupted recovery, and the resulting conditions were recently noted after a careful examination.

Dr. Marcy's first contribution upon this subject was read at the meeting of the American Medical Association in Nashville, in May, 1890.

He reports his subsequent experiences as satisfactory, and gives his fullest ap-

proval of surgical measures for the relief of biliary obstruction in wisely selected cases.

Dr. Marcy's paper is of the greater value, since he was the first to attempt the operation, and the first to operate successfully for the removal of a biliary calculus lodged in the common duct. Courvoisier to whom the credit of the first operation has been given by one writer, first operated January 22d, 1890.

Meeting of Buncombe County Medical Society,

At the regular biweekly meeting of the Society, Monday evening, November 2d, Dr. McBrayer, the President, occupied the chair and called the society to order at 8 o'clock.

The essayist for the evening, Dr. Baird, was absent on account of sickness but sent in a paper to be read by the Secretary, entitled Venesection.

The writer took the position that this measure had a place in rational therapeutics, notwithstanding the light that the past half century had thrown upon the nature of disease, and that its employment is indicated in the following diseases;

First stage of acute lobar pneumonia, where it relieves pain, lowers temperature, and relieves cardiac embarrassment; cases of so-called apoplexy, where the nerve centres are disturbed and compressed by vaso-motor influences; ecampic states induced by the accumulation of urinary excrementitious produced in the blood: in all cases of severe venous engorgement, in general plethora in certain forms of disturbed menstruation experienced by women nearing the change of life; in primary peritonitis, and in pleurisy and sunstroke, in properly selected cases.

Dr. von Ruck in discussing the subject thought other and better remedies, accomplishing the end aimed at had come to vogue in the treatment of the diseased conditions named, especially lobar pneumonia, peritonitis, and pleurisy—at aconite, veratrum, etc., would carry out the indications better in pneumonia—at strapping the chest would relieve pain in pleurisy as quickly and effectually and that to treat peritonitis, especially

tubercular peritonitis, by blood letting would be bad practice. He had never employed venesection, however, except in one instance, viz., a case of prolonged pulmonary hemorrhage, and here it acted like a charm.

Dr. von Ruck read a paper on Cod Liver Oil in Tuberculosis, in which he extolled the virtues of this remedy very highly. His object mainly in choosing so trite a subject was to get the views of members of the society on the best preparation to be used, the proper dosage, the best time of administration, etc.

Dr. Meriwether thought that too much could not be said in praise of this remedy in tuberculosis. He considered it the nearest to a specific of all the remedies given for this disease. He gave it in as large doses as the stomach would receive kindly, preferably in the form of a pleasant emulsion, about one and a half hour after meals.

Dr. Brownson had had some experience with Wampole's Tasteless Preparation of Cod Liver Oil and had had good results from it.

Dr. Burroughs stated that he did not give as much cod liver oil as formerly, though he had a good opinion of its merits. He himself had taken four or five hundred bottles and could speak from personal experience of its benefits in pulmonary troubles. He had had excellent results from it in children with enlarged lymphatic glands, and in this class of patients it was bourne exceedingly well.

Dr. von Ruck, in closing the discussion, mildly criticised Dr. Meriwether for using the term "specific" in connection with the effects of cod liver oil upon tuberculosis—that it did its work by stimulating the nutritive functions and not by antagonizing the specific micro-organism directly. He had hoped to elicit more discussion of the special preparation. In his opinion the greatest virtue lay in the pure cod liver oil, and that there was no reasonable ground for expecting the same results from the alkaloids.

A high authority asserts that a homicide takes place every two hours in Italy, day and night, ten times as many as there are in France, and thirty-five times the number in Denmark.

The Sanitary Topography of Cleveland, Ohio.

An article with the above title, in the Cleveland Medical Gazette for October, furnishes some interesting and important facts relative to the sanitary condition of that flourishing manufacturing city.

The author, Dr. H. J. Handerson, shows that while the general mortality rate of the city for the year ending June 30th, 1896, was only 15.27 per thousand (an extremely satisfactory rate for a city of 330,000 inhabitants), the rates for certain wards exhibited surprising variations from these figures, ranging from a minimum of 9.1 to a maximum of 30 per thousand. In like manner the general mortality rate from the so-called zymotic diseases was only 3.016 per thousand; yet in certain wards this rate increased to 5.74, 6.25 and even 7.73 per thousand. These unhealthy wards were, for the most part, located upon low land, bordering upon the Cuyahoga river, an arrow, crooked, sluggish, polluted stream, which divides the city into two unequal portions and receives the sewage of the adjacent territory. A notable exception, however, to this rule was found in the 13th ward, which, though located upon high ground, remote from the river, surrounded on all sides by wards of at least average healthfulness, and inhabited by a moral and respectable population, yet displayed the highest rate of mortality of any ward in the city. Defects in the local system of sewers and crowding were suspected to be the cause of this apparent anomaly.

Of the deaths from zymotic diseases, 47 per cent. were due to diarrhœal disorders, 25 per cent. to diphtheria, and 13 per cent. to typhoid fever, or a total of 85 per cent. to those three diseases. Deaths from diarrhœal diseases occurred in every ward of the city; from diphtheria in every ward but four, and from typhoid fever in every ward but two. In one of the specially insanitary wards the death rate from diphtheria alone amounted to 3.5 per thousand. The general mortality from typhoid fever was 39 per 100,000 inhabitants, but in one ward the number of deaths from this disease reached the enormous rate of 1.8 per thousand, or 180 per 100,000.

The general diffusion of this disease

throughout all the wards of the city was regarded as an indication of a polluted water supply. The city is supplied with water from Lake Erie, which likewise receives the sewage of its inhabitants. An excellent map, showing the location of the most unhealthy wards, the outfalls of the sewers, the natural drainage of the area occupied by the city, etc., accompanies the article and adds much to its interest and intelligibility.

The Treatment of Puerperal Infection.

In a paper on this subject, read at the September meeting of the American Association of Obstetricians and Gynecologists, at Richmond, by Dr. H. W. Longyear, of Detroit, the author divided the subject into prophylactic and therapeutic treatment.

Under the first head he mentioned the impossibility of obtaining, in this country, mortality statistics of women dying of puerperal disease, who have been accouched by midwives, and suggested the advisability of the health boards of our cities adopting such rules as necessary to obtain this information.

An appeal was also made to physicians to use their influence, where necessary, for the enactment of State laws to regulate the practice of medicine and midwifery, so as to protect parturient women from the dangers of the ignorant self-styled physician and midwives.

He advocated the intra-uterus examination of all cases of abortion and the removal of all remains of secundines, and for convenience he uses a forceps of his own devising (specimen exhibited) which is so constructed as to allow of its use in a cervix which is but slightly dilated, thus avoiding the use of anæsthesia and assistance, as is necessary with the use of the curette. He also exhibited a self-retaining silver intra-uterine drainage tube, of his own invention, which he uses in cases of infection, as well as after uterine curettage, in place of iodoform gauze, which he condemned as being a plug and not a drain.

He urged, in cases of infection, the necessity of exact diagnosis by bacteriological examinations, so that a more scientific application of remedies can be made.

He suggested the use of serum therapy,

and reported two cases successfully treated by diphtheria antitoxin.

The free use of the Sharp curette was condemned as tending to increase infection by producing new denuded surface for absorption, as well as by scraping away the protecting barrier of new granulation tissue. In all cases strong chemicals should be used (such as a mixture of iodine and carbolic acid) after the uterine cavity is emptied of its infectious contents, and the excess of these should afterwards be thoroughly washed out and the drainage tube inserted.

He condemned the removal of the uterus for infection, excepting in very rare cases, as the extent of the infection of the peri-uterine lymphatics can not be determined.

Immediate abdominal section was recommended in all cases of peritonitis occurring soon after labor.

Pathology and Treatment of Graves' Disease.*

Dr. Thomson objects to the name exophthalmic goitre being given to this disease owing to its derivation from symptoms either not necessarily present in unquestionable cases of the affection, or of uncertain duration and degree when present. This name, therefore, operates to attract undue attention to certain non-essential, because variable, developments in the disease, and thus directs inquiry from the more causative elements in its pathology. An equally serious objection is that this name may prevent a correct diagnosis, so that the disease may go on to a fatal termination from its nature not being recognized because the patients have neither exophthalmia nor goitre, while in others it is allowed to progress without treatment, which is so effective in the early stages, until the late development of engorgement of the thyroid gland reveals the true character of the affection. Thus in Pasler's series of fifty-eight patients at the Zena Poliklinick, ten had no goitre, and thirty no exophthalmia. Moreover, all writers on this disease recognize the fact that when goitre is present it varies greatly in its degree in the same patient

from time to time, in contrast with the persistence of true bronchocele without Graves' disease.

On the other hand the most constant elements in the course of Graves' disease are:

1. Digestive disturbance, in many cases long antedating the other symptoms, and culminating in severe cases in marked ematiation without fever, and in the majority with a tendency to persistent diarrhoea.

2. Nervous derangements presenting a great variety of sensory and motor symptoms in different parts of the body, such as neuralgic pains, disturbance of the special senses of sight, hearing, smelling and taste, local paralysis, etc.

3. Continuous tachycardia with dilatation and throbbing of the arteries.

4. Muscular tremor, both local and general, as if from emotional excitement, sometimes with a tendency to falling.

5. General nervousness, with, it may be, affection of the disposition and even of the mind.

6. Irritability of the bladder, especially at night, in some with itching of the skin, profuse sweats or other vaso-motor symptoms.

7. Falling out of the hair.

8. Progressive weakness, often very noticeable in the voice, with a tendency to death from exhaustion of the heart, owing to its long continued over action.

Dr. Thomson then narrates the particulars of twelve cases occurring in his private practice, in addition to the six cases detailed in a previous paper in the N. Y. Medical Journal of June 3d, 1893, which illustrate these facts. Several of these cases were extremely severe, but with the exception of one fatal case which was seen too late to administer remedies on account of the constant vomiting and diarrhoea, they all showed the benefit of treating the disease without any reference to the thyroid gland. As to the pathology of the disease, the hypothesis of its dependence upon some affection of the sympathetic, or of the bulbar centres, etc., have been generally abandoned, owing to lack of characteristic anatomical changes being discoverable any where in the nervous system which could be demonstrated to hold a constant relationship to the disease. On the other hand, Moebius' theory that the disease is due to over action of

*Prof. W. H. Thomson, Professor Practice of Medicine, New York University, in N. Y. Medical Journal, October 10th-17th, 1896.

the thyroid gland, causing a poisonous excess of its secretion to be poured into the blood, is equally discredited by the findings of pathological anatomy. For though some authorities mentioned claim to have found evidences of hyperplasia of the proper gland tissue in patients dying with this disease, which would seem to imply over secretion, others from similar autopsies have emphatically denied the existence of any distinctive changes which would support such a theory.

Dr. Thomson, therefore, maintains that over action of a gland is never spontaneous, nor the cause *per se* of any disease, but as with the parotids in salivation or the spleen in malaria, it implies a cause in the blood rather than in the gland for the phenomena. He maintains that therapeutics proves that the cause of Graves' disease is a general toxæmia induced by the absorption of intestinal ptomaines which produce both the wide spread poisoning of the nervo-vascular system and the stimulation of the thyroid.

The effect of treatment based upon this view are so prompt and effective, compared with the treatment of mere symptoms of the complaint by nervines, heart sedatives, etc., that this fact alone indicates the true nature of the disease. Thus it would seem that patients with Graves' disease can no more indulge in meat than diabetics can in sugar, which implies that disordered metabolism of certain of the nitrogenous elements of food is at the root of the trouble. This is in keeping with numerous experimental researches cited, that meat or meat extracts are directly poisonous to thyroidectomoid animals.

Dr. Thomson finds that unless the patients will abstain from meat, and take milk instead, that little improvement can be expected. The milk, however, should be either fermented, as in matroon or kumyss, or else peptonized, to make it digestible. Vegetable food may be allowed unless there be much diarrhœa.

As to medicines, intestinal antiseptics are the main stay. A purgative dose of calomel should be given once a week. The effect of that alone often reduces the pulse from 30 to 40 beats, and is the best agent to check the diarrhœa. Bismuth subcarbonate, 10 grains three to four times a day, with the same of sodium benzoate, and four grains of salol, should be per-

severed in for months. Especially good effects have been obtained also from phenol bismuth, in ten grain doses, while benzosol and ichthyol have often proved advantageous as adjuvants. Over action of the heart is best dealt with by 8 to 10 drop doses of strophanthus, or 5 drop doses of tincture of aconite.

Cattarrhal Diseases of the Nose and Throat.

In the "Journal of the American Medical Association," issue of Oct. 24, Dr. J. D. Albright, of Akron, Pa., in an original article entitled, "Catarrhal Diseases of the Nose and Throat," calls attention to the fact that this class of diseases is becoming more prevalent, seeks to dispel the idea that the successful treatment of them necessitates the use of expensive and complicated instruments, and urges the general practitioner to call to his aid the remedies and methods within his reach, and thus prevent these cases from drifting to the specialist, who, as the author well puts it, "is often no more than a physician who keeps well posted, and has the courage to apply his knowledge." As instruments necessary, he recommends a good light, head mirror, a nasal speculum, a tongue depressor and a laryngeal mirror. He advises careful examination of every case, as often the patient thinks he has catarrh of the nose, when in reality he has nothing similar to it. He divides these diseases into three well known classes: 1. Simple chronic Rhinitis, 2. Hypertrophic Rhinitis, and 3. Atrophic Rhinitis. In the simple chronic form, after mentioning as the most prominent symptoms, a discharge of mucus or if of long standing muco-pus, yellowish or whitish spots of the congested mucous membrane of the nasal cavity, swelling of granular tissue in the vault of the pharynx, with tenacious secretions, he gives the assurances that these cases yield readily to treatment, and a speedy cure can be promised. He advises daily cleansing with warm water, and also douching with an antiseptic saline solution, as cleanliness and mild stimulation are all that is required.

In the hypertrophic form the symptoms are given as proliferation of the mucous membrane, glands of the pharynx en-

larged, secretions thick and tenacious, causing occlusion of the nasal passages, rendering the voice nasal in character, and general structural changes. In this stage similar cleansing are advised, as also the occasional application of a five per cent solution of cocaine over the turgescent mucous membrane, covering the inferior turbinated bones to facilitate breathing. As a curative prescription he submits the following: Iodine grs. iij-Pot Iodid grs x-Zinc Sulpho carb grs xv-Glyco-Thymolin (Kress) 1 oz-aqua q. s. ad-ozs iv. Mix Apply with atomizer. He reports very satisfactory results with this mixture after a month's treatment.

In the atrophic form, when there is death of tissues, secretions hard and dry, walls of pharynx dry and shiny, patient possessed with a bad odor from the nostrils, and loss or impairment of the sense of smell, he advises a guarded prognosis. Nothing but relief should be promised. The two indications to be met are cleanliness and disinfection, and for this purpose the saline antiseptic solution before mentioned is recommended. A spray of liquid vaseline, to which camphor has been added will cause a sense of relief to the dry and glazed pharyngeal walls.

He regards the sense of smell, when lost, as almost without exception, lost forever, and places no confidence in the treatment that some advocate for the stimulating and regenerating of the atrophied mucous membrane, such as salicylic acid, galangal, nitrate of silver, etc.

Internally, while not disregarding constitutional defects, which must be treated, he gives no medication.

The subject is well handled in the brief space allotted to it, and we agree with the author, that the general practitioner loses many a opportunity to benefit his patients and himself, by not realizing the powers and possibilities that are at his very door.

The Practical Treatment of Typhoid Fever.

The New York Medical Journal of October 24th contained an ably written and exhaustive article by Dr. C. E. Skinner of New Haven, Conn., entitled "The Practical Treatment of Typhoid Fever,

based upon a consideration of its Etiology, Pathology, and Clinical Phenomena."

Starting with the presence of micro-organisms in the ileum as a primary cause, he classifies the management under three heads; removing the micro-organisms and thereby limiting toxine production by frequently washing out the intestine with saline laxatives per os, which are preferred to all others because of their unirritating mode of action, and the necessity as a softening and cleansing agent of the volume of water in which they are given; the disinfection of the fecal excreta by lime instead of other antiseptics because it penetrates the germ-laden albuminous masses occurring in typhoid dejecta and does not lock up infection by coagulating them, and of the bedding by being for half an hour after removal from the patient; and lastly the removal of the physical effects of typho-toxines.

Dr. Skinner thinks the good results from treatment by intestinal antiseptics in this disease are due to the removal of "infectious bowel-contents by the cathartics which always accompany" their exhibition. Stress is laid upon asepticising the clinical thermometer "in this and every other disease," and upon the necessity of avoiding cystitis by relieving urinary retention with a sterilized glass catheter. Soap, as a lubricant, is preferred to vaseline because it will dissolve in the urine leaving no insoluble particles in the bladder. Antipyretic drugs, because of their depressing influence, are severely frowned upon and the philosophy of their administration doubted. "The fever is purely a system evidencing the abnormal irritation of nerve centers by typho-toxine and not a primary cause. What is the use of temporarily crushing the results of a constantly-acting cause, and more especially when these results are not doing the patient any particular harm, whereas the method of elimination is very likely to?"

It is strongly recommended to defer stimulation until cardiac weakness gives warning of imminent vital exhaustion, as the sufferer does not need that assistance until he can sustain himself no longer. The exhaustion of the disease can be hastened by wearing out the patient's vitality with a too early or excessive resort to the "whips." In reference to the

abortive treatment, Dr. Skinner says: "The ever-present difficulty and the frequently present impossibility of positively diagnosing early typhoid fever would invalidate in my mind any isolated claims to an effectual treatment," and bacteriological investigation would be of no use as "Eberth's bacilli is not uniformly present in the discharges."

Rectal Periphlebitis Treated Successfully with Galvanism.

In a paper read at the annual meeting of the American Electro-Therapeutic Association in Boston, September 30, 1896, Dr. Dan'l B. D. Beaver, of Reading, Pa., reported a case of rectal periphlebitis treated successfully with galvanism.

J. R., aged fifty-four, stout, a free liver, developed hemorrhoids several times during the past ten years. Two years ago, and while fishing and wading a stream in damp, chilly weather, he took cold which led to an attack of acute rectal periphlebitis. Two weeks' rest in bed, with leeches and fomentations locally, and anodynes internally, relieved him.

Last fall he again became subject to discomfort in the lower part of the rectum, which in a few months gradually developed into severe pain with and following defecation, for which he called the Doctor about the first of December. The rectum had by this time become so sore that he could not bear the pain incident to passage of feces without first filling the lower bowel with water. He had, for two weeks, been moving the bowels daily with large injections of soapy water, and yet each evacuation was followed by excruciating pain, which compelled him to lie down several hours. After the subsidence of this pain he would feel well and follow his daily routine of work and recreation until the time for the next movement. Then the same round of suffering had again to be endured.

Examination of the rectum revealed a hard, tender cord extending upward three inches in the wall of the bowel on the left posterior side. It was very painful under pressure, incompressible, very slightly movable, and presented an irregular surface.

As he could select the time for defecation and its accompanying pain he went

through it in the early hours of evening, and so secured good sleep at night and freedom from pain during the day. Under these circumstances he could not be persuaded to leave his business and get the benefit of rest in bed.

The treatment had to be adapted then to out-door life with exposure to the changes of weather common to our cold season. He was directed to use anodyne and astringent suppositories, and keep the bowels soluble with saline and mercurial aperients. This treatment was continued one month without benefit or even temporary relief. During its continuance it was necessary daily to use half a grain of morphia per rectum after evacuation of the bowels, and take a recumbent position for several hours to relieve pain.

Patient and physician having become dissatisfied with the insufficiency of this treatment, electricity was tried. Galvanism was applied, cathode in the rectum and anode on the left side of sacrum and buttock, two to three m. for ten minutes, twice a week. After the first dose he felt sore, and consequently somewhat discouraged, but after the second he was elated, saying that it had given him more relief than all that had previously been done.

The improvement now became steadily progressive, so that at the end of two months, and after sixteen applications, the soreness, pain, and swelling had disappeared entirely, and the bowels moved without artificial aid and without discomfort of any kind. The morphia suppositories were required during the first week of the treatment with galvanism, but after that no drugs were used excepting an occasional aperient after the discontinuance of the soap-water injection at the end of the second week.

This was undoubtedly a case of chronic periphlebitis, and may possibly have had its origin in small, lingering, morbid foci left over from the previous acute inflammation of the same parts.

The Evolution of Medicine and Medical Education.

Minnesota stands in the front rank of the States in the control of medical practice and in the advancement of medical education. That her State University is representative of the progress in medicine

is eloquently illustrated by the spirit of the address delivered last month, at the ninth annual opening of its department of medicine, by Dr. R. O. Beard; Professor of Physiology.

Taking, as his topic "The Evolution of Medicine and of New Methods of Medical Teaching," he traced the development of medicine through successive phases of advancing civilization, to its present position—not only as an art, but as a science. Illustrating the distinctive qualities of each stage of this development, he allowed the story to gather its own evidence of the scientific character of the medicine of today. The most telling testimony of this fact was found in the evolution of modern methods of medical teaching, and these were contrasted effectively with the educational opportunities of a generation ago.

While scientific medicine, in its beginnings, was the science of the masters, and possibly of mastery only by the few, it has advanced with the coming of the age of individualism, to the point where the many must be masters of their calling. Not fewer intellectual giants are there, said the writer, than of old, but all the men and women of the medicine of today must be of larger mold. The many must needs grow to the stature of the earlier few. Science has become more available; its instruments are more accessible; its methods easier of attainment; its results more easily measured by improved means; its adaptation to daily practice more numerous. Each, in the medical science of the future, must be able to do what any other has done and, therefore, personal practical training is the essential of medical education. The teacher must come into closer personal contact with the pupil. Instruction must become more direct. For recitation work, for demonstrations, for laboratory exercises, for bedside and clinical study, for obstetric attendance, for the witness or the performance of operations, classes must be divided into small sections. The individual must be trained not only by the ear, but in the application of all his senses to this science.

That he may utilize successfully these new methods of medical education, a higher order of preliminary training is demanded in the student of today. To the fierce struggle for survival which

awaits the would-be competitor in medicine, he must bring an initial fitness to survive. The higher evolution of the science of medicine depends upon the quality of the men and women who enter its pursuit. The medicine of the future will be the product of the labors of the profession, not merely among its masters, but in its mass.

New Evidence that the Rectal Valve is an Anatomical Fact.

A profusely illustrated article by Dr. Thos. Chas. Martin under the above title appears in Mathews' Medical Quarterly (Louisville.) The writer states that clinical observation convinces him of the necessity of recognition of these valves as an obstructive factor to surgical sounding of the rectum and suggests that they deserve a serious consideration as a factor in morbid lesions and errors of development of the rectum.

After a review of the historical literature upon the subject (beginning in 1830) the writer briefly speaks of his investigations by the methods of others as follows:

"Houston distended and hardened the rectum *in situ* with spirit. On mesial section of the subject the gut presented valve-like folds unvarying number, and in different location in different subjects. He declared their structure to be a duplicature of mucous membrane and bundles of circular muscular fibres. Others, recognizing that in moderate distension the mucous membrane is loosely adherent in the lower rectum, insist that under the conditions employed by Houston the membrane would assume the same appearance in the upper portions, as that described by him and therefore conclude that these obstructions are accidental folds and not valves; and, as Houston did not support his statement by attributing to these valves the histological element which anatomists recognize as the essential element of a valve, the opinion of his opponents is seemingly reasonable, but is nevertheless mistaken, as the mucous membrane of the upper rectum is more closely adherent to the muscular wall than is that of the lower.

Hyrtl employed atmospheric distension after removal of the gut and observed an appreciable thickening of the wall of the rectum beneath the mucous membrane,

and with apparent good reason assumed this thickening to be muscle only. Under the same manipulations a valve may be made to lose its valvular feature and seem to support this view.

Velpeau supported Netaton's claim for the superior sphincter by removing the rectum and turning it inside out, so that its mucous membrane was external, and then by inflation demonstrated a marked constriction on the now external surface which was distinctly claimed to be a muscular band. It is very easy to understand how that which is a true valve on the interior of the gut would become a constructing band when the rectum is thus turned.

Dr. Chadwick deserves the very highest praise for having discovered by digital exploration the lowermost of these valves, which he declared to do a detrusor fecium muscle instead of a valve. I find that these valves, when not the set of disease, frequently elude the finger of average length or are inaccessible to it; and, as the uppermost is seldom less than five inches from the anus, this means of determining their presence is not usually a very practical or satisfactory one, as was very recently proven in a case in which the lowermost of Houston's valves was malformed into a congenital annular or diaphragmatic stricture with a central aperture, which although within two inches of the anus escaped my own digital perception and that of a dozen medical men in attendance at my clinic and was not discovered until subsequently revealed by proctoscopy.

The method by which I first obtained a satisfactory view of the semilunar valves in the living subject was described by me in the July number of Mathews' Medical Quarterly. * * * In the examination of more than a hundred living subjects I have found evidence to corroborate the testimony of these two investigators (Houston and Otis.) * * * * *

The absolute proof which is presented of the existence of these valves is found in the photographic reproductions. The very natural manner of preparing the specimens for necroscopical examination was also described in the paper mentioned. After a weeks' immersion in alcohol of the paraffin-filled gut the specimen was longitudinally divided into halves and the interiors photographed. The

drawing of the valve is pictorial testimony of what I believe to be a discovery, viz., the characteristic element of the semilunar valve of the rectum is the fibrous, almost tendonous band of tissue which occupies its free border and underlies the entire surface of the valve. The fibrous tissue characterizes the valve, the muscular tissue does not occupy its free border and is not its salient feature, although it is an important one. The arrangement of the blood vessels in its base is evidence of especial provision for its nutrition."

The writer in conclusion says: "The photographs demonstrate the presence of the obstructions under discussion; the sketch, which was drawn from the valve while under the microscopic lens, exhibits their character and proves it to be that of a *typical anatomical valve*, and the absence of any other such thickening of the wall in this gut is evidence that the semilunar valves and the so-called plica transversalis, sphincter ani tertius, superior sphincter, and detrusor fecium muscles described by the various authors are one and the same thing, and *that thing is essentially a valve*, which is most prominent when the gut is most distended."

Prostatic Enlargement.

Dr. J. W. S. Gouley before the recent meeting of the N. Y. State Medical Society enumerated, as follows, the chief morbid states giving rise to an enlargement of the prostate: (1) Acute inflammatory action; (2) chronic parenchymatus prostatitis; (3) dilatation of the prostatic sinus; (4) retention cysts; (5) tuberculosis; (6) true adenomata; (7) fibrous tumors; (8) diffuse increase of the prostatic fibrous framework; (9) circumscribed multiple myomata; and (10) diffuse increase of the muscular tissue. Tuberculosis of the prostate, he said, was rare, but when it was present was apt to greatly augment the size of the prostate. Diffuse increase of muscle tissue constituted the greater part of the substance of some hard prostates. The morphological changes: (1) Enlargement, limited to one lobe, or involving both lobes; (2) enlargement of the lobes unequally; (3) one or both lobes projecting into the bladder; (4) one or both lobes encroaching upon the prostatic region of the urethra; (5) the posterior third of the lower isthmus

alone enlarged in the form of a round, pedunculated tumor or a sessile growth; (9) the whole of the lower isthmus alone enlarged; (7) both lobes and the posterior third of the lower isthmus enlarged; (8) both lower lobes and isthmi increased; (9) enlargement of both lobes downward and backward, overlapping the seminal vesicles; (10) a mere bar at the neck of the bladder, with but little general enlargement of the prostate; (11) intramural isolated tumors; (12) multiple tumors from one or both lobes projecting into the urethra, with or without enlargement of the posterior third of the lower isthmus; and (13) multiple tumors, with or without general enlargement, sometimes springing into the bladder from the posterior third of the lower isthmus and causing incontinence of urine.

The most common form—chronic progressive enlargement of the prostate—was, he said, a disease of elderly men pre-eminently, and was present to a greater or lesser degree in about forty per cent. of all men between fifty and seventy years of age. However, only about one in six suffered serious inconvenience from its interference with urination. A careful analysis of many of these cases would not fail to demonstrate the inflammatory origin and slow development of chronic enlargement of the prostate. An important part of the treatment consisted in irrigations of the bladder, and for this purpose he preferred either a 1 to 10,000 solution of corrosive sublimate, containing one per cent. of phenol, or a 1 to 1,000 solution of formalin. Where the bladder was very foul, it should be washed out in the morning with the sublimate solution and in the evening with a very weak solution of nitrate of silver. The use of metallic catheters, either by the patient or by the physician, was condemned. Early operative interference was justifiable as prophylactic of the lesions consequent upon stagnation of urine, but was contraindicated when the upper urinary organs were seriously damaged. An operation should be resorted to in cases in which the bladder had been permanently contracted, when catheterism was extremely difficult or followed by rigors, or when self-catheterism was not possible. The chief operations were: (1) Suprapubic cystotomy; (2) the establishment of

a suprapubic fistula; (3) dilatation of a false route; and (4) capillary puncture of the bladder. These measures, while only palliative, were often of the greatest value. Dilatation of the false route should be accomplished by means of a special instrument, called an "invaginated catheter." It was usually followed by spontaneous urination for about two years, and then, although catheterism would be required, it would be much easier of performance than if the operation had not been done. Capillary puncture of the bladder might be done once in an emergency, but its repeated performance had been proved to be ill-advised. Suprapubic cystotomy was to be considered the safer method where other modes of operation were not clearly indicated. Numerous surgeons had reported excellent results from the radical operation of suprapubic prostatectomy. A new method of performing prostatectomy, and one that was particularly applicable to the early stages, when there had been but little involvement of the bladder or upper urinary organs, had been devised and performed by Dr. S. Alexander, of New York. The chief advantages alleged for his method were: (1) The combination of the infrapubic and suprapubic section for purposes of exploration as well as for enucleation; (2) the rapidity with which the operation could be performed; (3) the slight and controllable hæmorrhage during and after enucleation; (4) the slight injury inflicted upon the urethra and bladder; and (5) the maintenance of suprapubic irrigation and perineal drainage. This seemingly bold operation he looked upon as the greatest and best operation ever devised for performance upon the genito-urinary organs.

Alcoholism in Children.

Dr. Goriatchkine has made a very interesting report on this subject to the Moscow Society of Pædiatrics. He has seen quite a number of cases of ethylism, not only among the poor and working classes, where, unhappily, the example is often set by the father of the family or by the fellow-workers, but also in families belonging to the higher classes.

The author cites, as an example, the history of a little girl of five years, who often partook of cognac, of malaga, and

of port wines. This use of spirits began when she was two years of age, on the advice of a physician who was treating her. By little and little the child has become accustomed to this treatment, and actually she takes two small glasses of port and a teaspoonful of cognac each day. The child is anæmic, has restless sleep with nocturnal terrors, and the liver and the spleen are hypertrophied. In other cases the intoxication was more manifest, and showed the ordinary signs of chronic alcoholism.

In order to estimate the frequency of alcoholism in children and the causes which explain it, Goriatchkine has questioned the parents of all the children that he has had occasion to see in consultation at Saint Olga's Hospital. In four months he has been able to collect information of one thousand six hundred and seventy-one children (eight hundred and forty-one boys and eight hundred and thirty girls) from one to twelve years of age; of this number five hundred and six children (two hundred and eighty-two boys and two hundred and twenty-four girls),—that is to say, about one-third,—take alcohol, either as a result of their environment or (in half the cases) upon the advice of a physician. This abuse often commences in the first year. The author is convinced that, if there are so many alcoholics among the children, it is in a great degree the fault of physicians who habitually prescribe the various forms of alcohol either to stimulate the appetite or for other objects. Children thus frequently receive different preparations (vermifuges, diarrhoea remedies, etc.) in alcoholic infusion.

However, in the great majority of cases, alcohol is not indispensable, and ought to be replaced by other substances. In all cases the utility of alcohol is far from demonstrated. In prescribing alcohol, the habit may be formed, the need of an excitant may be felt, and in predisposed children, the issue of alcoholic parents, the alcoholic diathesis created by the alcoholism of the parents and remaining until that time in a latent state may often be awakened.

The administration of alcohol in chronic troubles of nutrition, to "give strength" to the child, appears to be not only useless but even dangerous, on account of the need which it creates. On the other

hand, there is no known authentic case in which alcohol shall have rendered real service. The fact that for the past six years alcohol has been used only in cases of extreme urgency at Saint Olga's Hospital (Moscow) is a proof of the manner in which one may omit it in medicine.

Therefore, the author advises strongly, in accord with Strümpell and Smith, to avoid prescribing alcohol as much as possible, and to oppose the parents with all one's power if they try to make children take it under whatever pretext.

Cardiac Disturbances from Gastric Irritation.

Dr. Henry Illoway read a paper on this subject at the New York County Medical Association Oct. 19, 1896 calling attention especially to the fact that functional and severe cardiac disease might result reflexly from gastric irritation. A number of cases were reported to illustrate this fact. In the first case, an indiscretion in diet produced a decidedly intermittent pulse, but examination of the heart was negative. The symptoms of cardiac disturbance disappeared promptly under the use of calomel and soda and restriction of the diet. The second case was that of a woman who had been told by her physician that she had cardiac disease and might die suddenly at any time. When seen by the speaker she was in the first month of pregnancy, and was very gloomy and depressed. Auscultation showed a slight whistling or blowing murmur with the first sound of the heart. As she was a rapid and hearty eater, and partook freely of greasy food, and as she vomited after meals, he concluded that the so-called cardiac disease was nothing but the result of disorder of the stomach. The patient was assured that there was no heart disease present, but that her mode of eating and her dietary required radical changes. Under treatment directed to the stomach she made a rapid and complete recovery, and went on to full term without trouble.

The speaker explained these cases by a reflex action though the pneumogastric nerve. The marked effect on the heart in pregnant woman was to be explained by the fact that, owing to the enlargement of the uterus, there was less room for a dilated stomach without exerting

pressure on the heart. Another reason was that in pregnancy the heart was apt to be both hypertrophied and dilated. The subject of the paper was one of some importance, he thought, not only in ordinary practice, but in life insurance.

Syphilis in the Young.

The October 15th, 1896, issue of *Pediatrics*, New York, contains an exhaustive article by Dr. Philip F. Barbour, of Louisville, Ky., on "Syphilis in the Young." He discusses the symptomatology and diagnosis of the various syphilitic lesions, which are often unrecognized by those who have not given special attention to children. The early manifestations of syphilis are usually to be found on the skin and mucous membranes. The skin lesions vary from a general *safe au-lait* color, and a senile physiognomy, through the inflammatory lesions, up to the bullous syphilide, the prognosis of which is so grave. Mucous patches of the skin and mucous membranes are described and "snuffles" is differentiated from other non-syphilitic lesions.

The inflammatory changes in the bones are dwelt upon; osteochondritis, periostitis, dactylitis, as produced by syphilis are differentiated from the other common causes.

Especial attention is called to the visceral changes which bear so directly upon the prognosis. The size of the spleen measures the degree of syphilitic infection and anemia. Diffuse interstitial hyperplasia of the liver and kidney, and the inflammatory changes found in the glandular portions of the pancreas, stomach, and intestines, explain the failures that much occur under even the best therapeutic agents.

The author prefers the mercurialunction, in the treatment of all the earlier lesions, or the hydrargyrum cum creta for internal medication.

The later hereditary symptoms are almost as important for the future of the patient as the earlier manifestations, and much more difficult of recognition. The retarded lesions, are mainly those of the bones, eyes, ears, and nervous system, and may be expected to develop at the two prominent periods of life, second dentition and puberty.

Hutchinson teeth are especially characteristic and are nearly always accompanied by interstitial keratitis. Other ocular lesions may also be met with. The aural troubles are not benefited by any medication.

Nervous lesions are the most obscure, but syphilitic meningitis may be differentiated from tubercular meningitis by the milder course of the fever, and by the absence of vasomotor disturbance, slow and intermittent pulse and irregular respiration.

The iodide in large doses offer the best results in the regarded forms, and are of especial value in the nervous affections.

Electrolized Salt Water as an Antiseptic.

According to the *Annals of Hygiene* Dr. Julien Proger, chief surgeon of the Asylum for Deaf and Dumb Children at Asnieres, near Paris, and member of the Sanitary Council of the Department of the Seine, for four months has been using electrolized salt water as an antiseptic, and has now laid the results of his experiments before the Académie de Médecine. This fluid is used in England as a disinfectant in the Royal Victoria Hospital at Netley, and as a deodorizer for the main sewers of Ipswich. The inventor, from the first, has claimed for it powerful and harmless antiseptic properties, and several years ago supplied Dr. Carlier, of Rouen, and Dr. Chantemesse, of Paris, with bottles of it for surgical and medical purposes. The opinion they expressed was very favorable, and quantities of it have been supplied to persons suffering from wounds, sore throat, sore eyes, etc. In his communication to the Académie de Médecine he gives a technical report of his clinical experiments, and then sums them up by saying: "The electrolized saline water is neither caustic nor irritating; it may be applied to the mucous membrane as to the skin; it instantly removes all bad odors; stops putrescent fermentation; kills microbes more effectually and rapidly than any other antiseptic; cleanses and heals fetid wounds and sores and hastens healing; it is an ideal antiseptic." Dr. Proger further declares that he has used it with success in a case of incipient diphtheria.

The Dosage of Nitroglycerin.

Mr. W. L. Armstrong in the Medical News, Oct. 31, 1896, writes interestingly on this subject. He says:

The dosage of nitroglycerin does not seem to be very clearly defined in medical literature. That poisonous effects may sometimes be obtained from small doses all observers recognize. Dr. H. C. Wood cites a case in which a single drop of a one per cent. alcoholic solution produced insensibility, and another case in which two drops caused complete loss of consciousness and of the pulse at the wrist. That the continued use of the drug creates a tolerance is mentioned by Dr. H. A. Hare, who says: "It is noteworthy that patients rapidly become immune to the drug, and Reading has recorded a case in which, after a year of treatment, one dram of a ten per cent. solution was taken daily, with good effect." The largest recorded dose reported by Dr. Whittier, that of $1\frac{1}{10}$ grains every three hours, or $8\frac{4}{5}$ grains in twenty-four hours.

Nowhere in the literature of the drug do I find even a suggestion that a contracted state of the arteries produces a condition which tolerates larger doses of the drug than when the arterial walls are in their normal state. Arguing from a slightly different standpoint, the proposition may be formulated that the poisonous symptoms of nitroglycerin do not begin to manifest themselves until the drug has relaxed the arterial walls beyond their normal tonicity. In confirmation of this theory, I submit, through the courtesy of Dr. Beverly Robinson, the following three sets of experiments, which were carried out, last winter, at St. Luke's Hospital. For the smaller doses, tablets of nitroglycerin were used, and for the larger doses a ten per cent. alcoholic solution. This solution was subjected to a quantitative analysis by a competent chemist, and found to be of full strength.

To six patients with normal arteries and hearts nitroglycerin was administered in the dose of $\frac{1}{100}$ of a grain, every hour. After three or four doses, in several of the cases, and before the expiration of twenty-four hours in all the cases, headache was produced. In other words, a total dosage of about $\frac{1}{3}$ of a grain in the 24 hours caused poisonous symptoms.

The second experiment can scarcely be called such. There was a patient in the male ward with well marked atheromatous arteries, but no tension. He had never taken any nitroglycerin in his life, to his or my knowledge. By mistake, he was given, at a single dose, $2\frac{1}{2}$ grains of glonoin. This large dose was followed by absolutely no discomfort whatever. In this case, apparently, the rigid condition of the arterial walls did not permit the nitroglycerin to produce its relaxing effect, and so no poisonous symptoms occurred.

The third set of experiments was tried on cases of marked arterial tension, the walls being free from atheroma. The first case was a man, fifty-three years of age, who had been troubled for ten years with severe attacks of asthma. The physical examination revealed loud, sibilant, and sonorous sounds, subcrepitant and moist râles over both lungs, and marked tension in the radials. The urine contained a trace of albumin, and, at times, a few hyaline casts. During 25 days the nitroglycerin was gradually increased, so that finally he was getting 76 grains in the 24 hours. All the signs had disappeared from the chest, the breathing was easy, there was no tension in the radials. At no time during the administration of the glonoin did he suffer from headache or any symptom that could be attributed to the action of the drug. The medicine was then stopped, to observe what the effect would be. Within forty-eight hours he had a return of his asthma and radial tension. Another case of arterial tension was that of a man, 21 years of age, who had had symptoms of nephritis for ten weeks previous to entering the hospital. His urine contained ten per cent. of albumin and numerous granular casts. His radials were markedly tense, but free from atheroma. During four weeks the nitroglycerin was steadily increased, so that he finally took 125 grains in the 24 hours. The tension had entirely disappeared, and no unpleasant symptoms had presented themselves. The final dose was 8 grains every hour while awake. Upon increasing the dose to 9 grains, a slight headache was produced, and the drug was pushed no farther. It should be stated that in both of these cases of high arterial tension the relaxation of the radials was obtained some little time be-

fore the maximum dosage was reached. The drug was increased from that point simply to observe the degree of tolerance.

The above results point to the following conclusions in regard to the dosage of nitroglycerin;

1. It is only when dealing with arteries in which there is no more than the normal tonicity of the walls that the drug is liable to produce disagreeable effects. Under the condition it should be administered with caution and in small doses.

2. In cases of arterial tension, the drug can be used more freely than has been customary among practitioners the dose being proportioned to the degree of tension.

3. In cases of arterial tension, tolerance to the drug is rapidly acquired, and, by a slight increase day by day, very large doses can soon be taken with safety, the constant guide being the degree of tension in the arterial wall.

Glycerin in the Induction of Labor.

Kossmann (London Lancet) considers that the accidents which have occurred in the induction of labor by the injection of glycerin were caused by the drug being used in large doses for hygroscopic purposes, and not with the more physiological object of, as in the rectum, stimulating the unstriated muscle. He has used glycerin injections in two cases with marked success.

The first case was that of a III-para, who had in her previous labors gone four weeks over time and given birth to a dead child. At the time she came under Kossmann's observation the gestation had lasted forty weeks. The abdomen was very large, and the patient wished for a living child. Five cubic centimetres of glycerin were injected with antiseptic precautions into the cervical canal, and a colpeurynter was introduced into the vagina. In a few minutes powerful pains began, the os dilated, and combined version became possible. A healthy female child was delivered in one and a half hours from the injection. The women made an uninterrupted recovery.

The second case was that of a multipara, who suffered from enormous varicose veins of the legs, vulva, and vagina, which had so obstructed the last

labor that the child was born asphyxiated. Kossmann decided to induce labor on this occasion at the thirty-fifth week. He injected five cubic centimetres of glycerin into the os and placed a strip of iodoform gauze soaked in glycerin in the cervical canal and a colpeurynter in the vagina. Five minutes later the pains came on, version was performed, and the child delivered with ease. The woman passed through a normal puerperium, and the veins rapidly were reduced in size. He concludes that the injection of this quantity of glycerin into the cervical canal will bring on strong pains without leading to nephritis or any other effect. The method is much more rapid and certain than puncture of the membranes, vaginal douches, etc. It is free from the danger of infection which attends the injection into the uterine cavity. The introduction of a colpeurynter into the vagina serves to keep up the pains when they have been started, and therefore makes further injection of glycerin unnecessary. Kossmann recommends the use of this method as being, next to simple vaginal douches, the most harmless method of inducing labor.

Rheumatism.

The treatment for acute articular and chronic rheumatism is outlined by Dr. T. H. Barker as follows:

1. In acute cases, the salicylates will cure a larger number in fewer days than any other known mode of treatment.

2. In chronic cases, the salicylates are unquestionably serviceable, either alone or in combination with other drugs.

3. While the salicylates neither prevent nor ameliorate the cardiac complications (except by lessening the number of days the patient is exposed) they certainly do not produce or aggravate this complication.

4. Under the salicylate treatment, relapses are not so frequent as in other modes of treatment, provided the administration of the drug is not suspended too suddenly after the cessation of the pyrexia and articular symptoms.

5. In uncomplicated myalgia; the salicylates render little or no benefit.

6. As from 50 to 60 per cent. of all cases of rheumatism are attended by car-

diac complications, the proper protection of the heart is the most important indication to be fulfilled.

Treatment of Periuterine Septic Diseases.

Dr. W. E. B. Davis, of Birmingham, Ala., read a paper on this subject at the recent meeting of the American Association of Obstetrics and Gynecologists. He said: Only recently has the extremely radical procedure of hysterectomy been practiced in this country for septic diseases of the internal genitals. A wave, which had its origin in Paris at the hands of Pean, aided by Richelot, Segond, Jacobs, and others, reached our shores three years ago, and has found a considerable following among our leading operators. The claim is made that there is no use in leaving the uterus behind after the removal of the appendages; in every operation for septic diseases of the female generative organs which demands the removal of the tubes and ovaries, hysterectomy should also be performed, unless there are plain contraindications forbidding it.

It should be the aim of the surgeon to preserve everything consistent with thorough surgical work, and not to sacrifice important organs because it can be done with only a small mortality. We are told that the uterus has no function after the removal of the appendages, but this has not been demonstrated; and, on the contrary, we know that the sexual life of the woman is very much better preserved by leaving the uterus, and that the mental effect is also much better. A slow convalescence, or even a second operation, is preferable to its removal; unless very much diseased. It is a reflection on the correctness of the reports of complete recoveries of such a large per cent. of the cases by many most excellent surgeons, when the uterus was not removed, to accept the argument now being used in favor of hysterectomy in all these cases. He could not agree with Dr. Sutton and others that pus in the tubes was due to gonorrhea in 75 per cent. of cases. He thought that puerperal infection was the cause of more than 50 per cent. Tubular infection was rarely the cause, and so important as had been claim-

ed. However, the importance attached to gonorrhea was against the argument for the removal of the uterus, as the infection from this source was not deep and could be removed with the curette. Because some patients were not completely cured by the removal of the appendages was no argument for hysterectomy in every case where the bilateral operation was required, for nearly all these could be relieved by a thorough curettage. Some large uteri would require, in addition to this, a high amputation of the cervix, and only a small number would need a hysterectomy.

Vaginal incision for the drainage of pus in the pelvis, not confined to the tubes, was a most valuable method of treatment in a well recognized class of cases, and had been practiced for a long time with gratifying results. A large number of these cases required no further surgery. More recently large abscesses and ovarian abscesses had been incised and drained through the vagina, with permanent recoveries in a good proportion of cases. The uterus should always be curetted at the same time. These were the very cases where the vaginal operation and hysterectomy had been recommended so highly by the French surgeons. Yet a considerable per cent. of these cases could be relieved by vaginal incision and drainage. The object of the surgeon should be, not so much toward still further reducing the death rate from the operation, but to relieve the cases and preserve, as far as possible, organs which had so much to do with the woman's health and happiness.

Enuresis Nocturna.

Dr. A. B. Wilson, Buffalo, N. Y., writing, says: "This was a case of a girl nineteen years of age, suffering from irritable bladder, and who had wet the bed nightly from childhood. She was compelled to avoid company and the usual social life, on account of frequent micturition. One bottle of Sanmetto overcame the irritation to such a degree that for the first time in fifteen years she passed a night without wetting the bed. She is still using the remedy in hopes of complete recovery.

Symptoms of Uterine Cancer.

Dr. W. R. Williams in the British Medical Journal Oct. 17. 1896 writes an interesting article on the subject. He says it is of great importance to be able to recognise the existence of uterine cancer in the earliest possible stage, as well as when the disease is more advanced, and this can only be done by paying attention to such indications as I will now proceed to describe. Hæmorrhage, foetid discharge, and pain are the symptoms on which most reliance can be placed; and with these there usually goes marked disturbance of the general health. The order of succession of the different symptoms, their precise mode of association, the relative urgency and duration of each, vary so much in different patients that no general description will exactly fit every case. Cancer of the uterus is often ushered in by certain vague premonitory indications, such as malaise, lassitude, loss of appetite, uneasy sensations in the lumbosacral and genital regions, leucorrhœa, &c., but these generally pass unnoticed.

In most cases hæmorrhage is the first symptom to attract the patient's attention and it is rarely altogether absent. Hæmorrhage is, in fact, by far the most important revealing symptom of uterine cancer. In the midst of good or passable health, sudden—often profuse—loss of blood is experienced. This usually appears at some time other than the catamenial period, and coitus may be its determining cause. If the amount lost is small, even this indication may at first excite no alarm, for slight irregular hæmorrhages, of no special import, are not uncommon at this period of life. Usually, however, the initial hæmorrhages are considerable, amounting to a "flooding" or if trivial at first it soon reappears in this exaggerated form. Thus alarm is excited and the patient is induced to consult a surgeon. It is impossible to insist too strongly on the importance of at once submitting patients seeking advice under such circumstances to vaginal examination. Metrorrhagia occurring for the first time after the complete cessation of the catamenia is generally due to cancer. In those who have not ceased to menstruate the disease may manifest itself by increased profuseness of

the catamenial flow or by its undue prolongation, instead of by metrorrhagia. It is important to bear in mind that these hæmorrhages are quite independent of ulceration, which they precede. The blood is furnished by the congested mucosa, which relieves itself by the issue. This accounts for the temporary mitigation of the symptoms to noticeable after "flooding." As the malady progresses hæmorrhages become more frequent, and in the intervals the patient is seldom free from serious or sanio-serious discharge. In the penultimate stage, however, owing to the great enfeeblement hæmorrhage is much less abundant. Although the total amount of blood thus lost in the course of the disease is very great, yet death from hæmorrhage is decidedly rare; of ninety fatal cases under my observation only two succumbed from this cause.

In this initial stage of the disease a certain amount of leucorrhæal discharge is of common occurrence, but there is then rarely any fœtor. With the super-vention of ulceration, however, the character of the discharge changes; it acquires a dirty, reddish colour "like meat juice," as well as great acidity, and a peculiarly foetid odour. It may be of watery or puriform consistence and it is generally fairly abundant. Small clots, fibrinous shreds, and débris from the disintegrating neoplasm are often noticeable in it. The acidity is sometimes such as to cause excoriation of the external genitalia and adjacent parts, and even pseudomembranous forms of inflammation. In these respects it differs markedly from the comparatively unirritating glairy discharge of cervical catarrh and from the muco-purulent exudation of endometritis. Although foetid discharge is a fairly constant system of uterine cancer, yet the mere presence of such a symptom by no means justifies the diagnosis of that disease. Foetid discharges are often associated with inflammatory affections of the uterus and with other morbid conditions, especially such as involve the presence of any decomposing matter within the organ—e.g., retained clot, placental fragments, sloughing fibroid, or polypus, &c. On the other hand, the peculiar odour of the cancerous discharge is often not developed until a late stage of the disease.

The inferior segment of the uterus in

its normal state is so exceedingly callous to ordinary stimuli that it would be surprising if much pain were experienced in the early stages of the disease. Hence we generally find that the malady has made considerable progress before the patient's suffering is great, although in exceptional cases pain may supervene early. In about one-seventh of all cases no severe pain is complained of throughout the entire course of the disease. The earliest painful sensations are those due to congestion and tumefaction at the seat of the disease, hence the dull, aching, and dragging pains in the back, iliac, genital, and anal regions, and the uneasy sensations associated with micturition, defæcation, &c. In later stages the suffering is more severe, constant burning and dull aching paing being complained of, together with frequent crises of extreme exacerbation often of a lancinating neuralgia character. Paroxysms of pain recurring several times in the course of twenty-four hours are specially indicative of cancer of the corpus. The worst pains are generally due to invasion of adjacent structures by the spread of the disease and the complications resulting therefrom; when the nerves are thus implicated the pain is often very severe and intractable. Inflammatory complications add much to the patient's suffering, especially pelvic peritonitis. In conclusion, it may be remarked that of all the symptoms of uterine cancer pain is the most variable and the least reliable. Indications of determination of the general health manifest themselves sooner or later in most cases, and the various disturbances appear that together constitute the clinical *ensemble* known as the cancerous cachexia, into the details of which I need not here enter. It is only during the last six or eight months of their illness that most patients are bedridden, the total duration of the disease, according to my calculation, averaging twenty-four months.

Ovario-therapy.

M. Touvenaint has recorded the result of his clinical researches into the indications and effects of the treatment of various morbid states peculiar to the female by the administration of ovarian tissue. In these experiments, continued during

several months, he made use of the heifer's ovaries dried at a temperature of 25° C., powdered, and given in pills, each containing 12 centigrammes of the dried powder, which quantity corresponds to 80 centigrammes of the fresh organ. Two or three pills were given daily a quarter of an hour before meals. Of fifteen patients thus treated four had undergone total vaginal hysterectomy, two double ovariectomy, three were affected with amenorrhœa, one with dysmenorrhœa, three with serious chloro-anæmia, and two were under the influence of the natural menopause. M. Touvenaint is by his experience to the following conclusions: (1) Ovarian medication can be had recourse to and even continued for a prolonged period with safety provided the effects are watched; (2) the average dose of the dried organ should not exceed 24 or 39 centigrammes a day; (3) the treatment should be continued for several months; (4) ovario-therapy appears to be particularly applicable in the treatment of amenorrhœa and chloro-enæmia, in which conditions the results are excellent; (5) it is also very useful in all cases of surgically induced "change of life"; and (6) it may also be tried with advantage in combating the nervous symptoms peculiar to the natural, climacteric.

Vulvo-Vaginitis in Children.

Dr. H. B. Sheffield, in *Medico Surgical Bulletin*, comes to the following conclusions in reference to infectious vulvo-vaginitis in children:

1. Infectious vulvo-vaginitis in children is of gonorrheal nature; the diplococcus present in the purulent discharge is invariably identical with Neisser, decolorizing by Gram's method.
2. The infection can be conveyed through common privies, baths, beds, clothing, etc.
3. The symptoms accompanying the disease are far less severe than those described in most text books.
4. Most of the complications are preventable.
5. The value of boric acid or mild silver nitrate solutions as prophylactics of purulent ophthalmia is very doubtful.
6. Silver nitrate in strong solution is a reliable abortive of purulent ophthalmia, if used in the very earliest stage.

7. The mere presence of gonorrheal discharge in a small girl, without injury to the genitalia, does not prove that rape has been attempted.

8. Physicians in charge of asylums, or similar institutions, should be on their guard not to admit girls with vaginal discharge, unless they can convince themselves that this is not of gonorrheal origin.

9. The subject in question deserves a more careful study by the gynecologist, pediatricist, as well as by the general practitioner and medical jurist; and by their united observation we should in the near future be enabled to dispel any and all doubt as to the real nature of infectious vulvo-vaginitis in children.

Abdominal Supporter after Coelotomy

In the October number of the Alabama Medical and Surgical Age, Dr. I. L. Watkins, of Montgomery, Ala., contributes an article "on the use of the Abdominal Supporter after Coelotomy," in which he takes the position that many of the former theories as to the cause of visceral hernia are inconsistent. The supporting elements of the contents of the abdomen are broad, thin muscles, supplemented with well developed fascia. With these in perfect tact, however enfeebled they may be, only a slight pendulous condition of the abdomen without any disposition to hernia, may result. Neither is the drainage tube, so frequently condemned by surgeons, always responsible for this unfortunate condition. To my mind, when carefully managed and removed early, it not only does not contribute to the cause of hernia, but lessens the danger through the drainage it supplies to the wound. Stitch abscesses are less frequent where the drainage tube is used, which, after all, is the greatest factor in producing hernia.

The sloughing usually leaves a greater or less area where the normal texture of of the tissue is destroyed, which constitutes a favorable point for the escape of the viscera. Adhesions of the omentum or the bowels, is frequently the cause. Just how this is done I will not attempt to say, but in all cases where I have operated for visceral hernia, I have found extensive adhesions in the neighborhood of the opening. The probable explanation is that some inflammatory process

going on at the time adhesions took place is responsible for the trouble.

He has his own bandages made by a seamstress, whom he has instructed, and requires his patients to wear them constantly for two years, while on their feet. The Doctor's long experience in abdominal work should certainly commend this subject to a very serious consideration of surgeons who do abdominal work.

Non-Tubercular Chronic Diarrhea of Infants Treated by High Injections.

Daughez advocates the use of large irrigations of warm boric-acid solutions in non tubercular chronic diarrhea of infancy. By this means the infectious agents, ferments, and microbes, which settle especially in the large intestine, are washed away. If desired, a two per cent. solution of hyposulphite of soda, or of nitrate of silver 1-2000, may be introduced high up into the rectum by means of an esophageal or urethral catheter of large caliber.

These injections should be made every day, or at least, every second day, alternating, in the latter instance, with a periodical or methodical treatment by means of purgatives (sulphate of soda, or magnesia, or calomel, associated with betanaphthol or salol). Later (from the sixth to the fifteenth day), opium and subnitrate of bismuth will complete the cure.

The investigations of Gilbert and Dominici have shown that purgatives reduce from fifteen billion to two or three billion the organisms found in the intestines in such cases—coli bacilli, amebæ, etc. The stools, owing to the action of these intestinal microorganisms, are very fetid—brown, or green, and fluid—mixed with glairy secretions which adhere to the napkins. There are usually only four or five a day, without blood, or membranous flakes, or rice-grains, as in dysentery, without tenesmus, pain, meteorism, or any gastric trouble.

Daughez agrees with many others who have recently investigated such cases that the usual cause of infection is impure drinking-water. He quotes from a number of clinical records of patients cured in from two to four days of long-standing chronic diarrhea by irrigation

the colon. In introducing large quantities of fluid the pressure should be light (one to three ft.) and the fluid should enter the colon slowly, while the patient lies on his back with a pillow under the left hip so that the cecum may be low.

The Treatment of Pregnancy and Labor Complicated by Fibroid Tumors of the Uterus.*

The author, Henry D. Fry, M. D., Washington, D. C., stated that his aim was to present the subject for discussion from the standpoint of the obstetrician and not the gynecologist. The treatment of a woman with a rapidly growing tumor is of secondary importance. The management of pregnancy complicated by this condition is of prime importance and the claims of the child are brought forward for consideration.

The propositions he wished to advance were.

1st. The production of abortion was unjustifiable.

2nd. Labors presenting serious difficulties to delivery were best treated by abdominal section and removal of the child and tumor.

By maintaining this position the interests of the mother were not relegated to second place. While saving the life of many infants, the maternal mortality will also be diminished.

He next directed attention to some points bearing on the natural history of fibroids complicating the pregnant state, and before taking up the question of treatment, he briefly referred to the histories of some cases that had come under his observation.

Under treatment he first considered the proposition:

"The production of abortion is unjustifiable.

1st. Because it destroys the life of the child.

In some cases however it is unavoidable, but in others the gestation may be prolonged to viability or even to full period. In a certain proportion of the latter cases, delivery may even be ter-

minated *per vias naturales*, when early in gestation it had seemed hopeless.

Who then is warranted in destroying the life of the Embryo in early pregnancy because of the presumable difficulties that *may not* be overcome? Given a case which has passed through utero-gestation without a favorable change in the obstruction produced by the tumor, what then? Still give nature a chance. Under the influence of labor pains this growth may yet recede out of the pelvis. This contraction of the longitudinal muscular fibres, their arrangement in the corpus, the thickening of the uterine wall above the ring of Bindl and the thinning of the lower segment of the uterus, are well established physiological changes.

These may elevate a pathological excess of tissue above the contraction ring.

While recognizing nature's claims for a fair trial we must be careful not to permit the labor to be prolonged sufficiently to exhaust the woman and jeopardize the chances of surgical interference.

In cases where the destruction of the life of the child is unavoidable the production of abortion is still not warranted.

The dangerous complications that so often set in after spontaneous abortion in these cases cause a maternal mortality of 12 per cent. The constrictions and tortuosities of the cervical canal prevent the complete expulsion of the ovum. The deficient drainage adds to the invitation for septic trouble, which too often spreads to the fibroid growths. The success of active local treatment is often defeated and it is impossible to clean out and disinfect the cavity of the uterus. The same difficulties and dangers apply with greater force to the artificial production of abortion. Cases of pregnancy complicated by fibroids of the uterus which cannot proceed either to viability or full term demand interference of two kinds.

1st. To remove the obstacle and then to permit the gestation to proceed, or

2nd. If this be impossible to remove the tumor and pregnant uterus by supra vaginal or complete hysterectomy.

The second proposition is maintained in view of the great mortality that experience shows will follow efforts to extract *per vias naturales*, in all cases presenting serious difficulties, surgical

*Read before the Southern Surgical and Gynecological Society at Nashville, Tenn., November 10th, 1896.

interference offers better chances for mother and child.

Caesarean section should not enter into consideration in this class of cases, owing to the frightful mortality that has resulted. The disastrous result of closing the uterine wound a fibroid if growth exists in the organ is enough to banish it, besides the objection that if the woman should recover she will continue to have a diseased uterus. The chances of method will rest between a Porro and hysterectomy.

The Porro is permissible only when the tumor is situated sufficiently high to permit construction of healthy, uninvolved, tissue below it. Hysterectomy may be complete or supra vaginal amputation. Fibroids situated low in the pelvis are better treated by complete hysterectomy.

A Case of Interstitial Hepatitis Due to Malaria.

Dr. Bate (American Practitioner and News), in a paper entitled "Chronic Interstitial Hepatitis, With Clinical Cases," read before the Academy of Medicine (Louisville) makes a 'resume' of the subject and reports a case of cirrhosis due to malaria. He believes, "the consensus or opinion to be for mercurials in the treatment, which is palliative rather than curative," and cites "Reported cures from the use of mercury; the iodides, and diuretics." "By the use of calomel in small doses" he emphasizes not only "its diuretic, alternative, antiphlogistic, and cholagogue effect," but also "the very important condition of antisepsis maintained not only in the alimentary canal but in the occluded bile ducts as well." He reports the case as follows: "Mr. S. age 61 years, teamster by occupation, father of a large and healthy family"—"Physical examination showed abdominal dropsy seemingly to its utmost extent, with marked swelling and oedema of lower extremities; lessened motion over right side; fluctuation, with tenderness below free border of ribs was found on palpation; region of hepatic dullness extended up to the right nipple but was lessened over left lobe; lower region of liver could not be mapped out by percussion on account of a great degree of ascites. Subsequent examination showed

it to extend about the width of two fingers below border of ribs. Hemorrhoids were very large and painful. Urinalysis showed only ammoniacal degeneration."

Marked benefit apparently occurred from the use of 'calomel; diuretics; and antimalarial treatment, consisting of quinine salicylate, followed by Warburg's tincture." The patient was twice relieved of symptoms for short periods, after the third relapse, however, patient became "progressively worse." "The symptoms were those ordinary to the latter stages of cirrhosis." "Paracentesis abdominis was resorted to several times. The Ascitic fluid was peculiar in that it was chylous. A chronic peritonitis began and the patient died in an asthenic condition precipitated by gastric hemorrhage. A post mortem examination was refused."

"The diagnosis was made upon the history of sixteen years exposure to paludism, negative history of alcoholism, syphilis, gout, rheumatism or irritation from alimentary tract; upon the impaired hepatic circulation shown to have existed several years by the presence of hemorrhoids; upon the enlarged liver and spleen; by the absence of tumor, or cancerous nodules, and upon the apparent benefit of antimalarial treatment."

"The course of the disease was classical. Death occurred in nine months after first appearance of ascites."

It is highly probable malaria is a more frequent factor in the etiology of interstitial hepatitis than is generally accorded. In malarial districts few are free from the poison and "heaptic engorgement" is among the earliest manifestation. All causes act by first producing a congestion, consequently, it should be the rule rather than exception for cirrhosis to follow: and very probably this would be true if it were not for the universal custom among the laity to use calomel for the early relief of this condition.

The Typhoid Bacillus in Osteomyelitis.

To the comparatively small number of cases of osteomyelitis, due to infection with the typhoid bacillus, in which the identity of the organism found was well authenticated, Bruin contributes another.

The bone affected was the left tibia, which contained a cavity filled with gran-

ulations and a small quantity of bloody pus. From the material removed at the operation a bacillus was isolated which proved itself to be identical with the bacillus of typhoid fever, after having been subjected to a careful study.

A remarkable fact about the case was that the patient had had typhoid fever six years previously and an osteoperiostitis of the femur of the other limb during convalescence. There was also a history of pain in the left leg about the same time, which gradually quieted down, but had in later years recurred at intervals.

This case seems to show clearly that the typhoid bacillus can survive in bone for an indefinite period without necessarily causing very serious disturbance.

Articular and Cutaneous Manifestations in the Course of Late Hereditary Syphilis.

Millon has reported the case of a boy, fifteen years old, of syphilitic family history, who had been healthy until five years, when he had a severe eye affection, involving the cornea. One year later the right knee became swollen and painful, making walking impossible for three years; a large abscess developed below the knee, and finally cicatrized. Parotid and maxillary abscesses also formed and left prominent scars. When eleven and a half years old, multiple gummata developed on the knees and legs, and for two years the boy did not walk; then there was improvement, followed by renewed severity in the lesions.

At fifteen he was small and undeveloped, with Hutchinson's teeth, legs much reduced in size, both covered with an irregular, superficial ulceration, surrounded by an adherent, red, cicatricial skin, and the knee joints enlarged. The liver was large, and very hard, but causing the boy neither pain nor other symptom; there was some ascitis.

Under treatment with mercurial inunctions and potassium iodide internally, improvement was rapid in all the lesions except the liver, which necessitated his admission to the hospital, where the ascitic fluid was withdrawn by puncture. Pneumonia developed, and the boy died.

The family history is of interest as

bearing on the case, for the mother remained free from syphilis, the father having acquired it just about the time of the boy's conception, and the father died of phthisis. Therefore a mixed inception of syphilis and tuberculosis may have existed.

Articular lesions in tertiary syphilis are rare, and, according to Fournier, of three varieties: Hyarthrosis, without inflammatory symptoms. white pseudo-tumor, causing globular deformity of the joint, and without fungosities; arthropathic deformans, which is rare, and causes great deformity, due to osteophytic vegetations. The above case does not belong frankly to any one of these, but seems to have been a fungoid peri-synovial infiltration, approaching the type described by Lanceraux.

The cutaneous lesions, from their position on the anterior surface of the legs, and the rapidity with which they healed under the mixed treatment, were undoubtedly a kind of syphilitic tumor hereditary in origin.

Diseases of the Rectum and Anus.

At a recent meeting of the Academy of Medicine and Surgery, of Richmond, Va., Dr. Geo. K. Sims, of that city, read a very interesting and instructive paper entitled "Diseases of the Rectum and Anus."

He called attention to the importance of these diseases, and the fact that they are slighted by the profession. He emphasized the importance of a careful physical examination in every case, and gave a full description of the positions, technique, and methods of examination.

In the treatment of these diseases it is very important to keep the bowels moving freely and the excreta soft, and the portal circulation active, by laxatives, salines and enemata. After operations they should be confined for a few days, to give rest to the parts.

Hemorrhoids are external or internal, depending on their relation to the sphincter. External piles are venous, or cutaneous; the former are varicose or thrombotic; the latter, hyperplastic, redundant cutaneous, and a hypertrophy of the normal radiating folds of the anus.

Internal hemorrhoids are vascular tumors, caused by anything retarding or

obstructing the venous return circulation, resulting in increased blood pressure about the rectum. In making the examination, have patient bear down, the piles become distended and can then be more readily seen and felt.

TREATMENT.—Remove the cause when possible. Locally use anodyne astringent, and antiseptic lotions, injections, suppositories and unguents with warm fomentations. Excise the thrombi, or redundant tissues and treat antiseptically. Many cases are cured by simple dilatation of the sphincter, under complete anæsthesia. Treatment by injecting the piles with carbolic acid was not advised, but this, as well as the method of excising one pile at a time, under cocaine, and stitching the edges together, may be used in cases of moderate severity, when patient cannot afford to lay up, or take an anæsthetic. Usually, cases requiring an operation had best have them all removed at one sitting, by either the clamp and cautery, ligation, or Whitehead's operation.

Anal fistules may be complete or incomplete. They result from a perirectal or ischio-rectal abscess. The sinus is often tortuous, and there may be blind sinuses, they may burrow around and come out on the opposite side, forming horseshoe fistules.

The diagnosis is usually simple. When the probe fails to find the internal orifice, hydrogen dioxide injected into the sinus will often find its way through. We should not forget that a sinus near the anus may come from necrosis of the bones, or other tissues in the neighborhood, and have no connection with the rectum.

TREATMENT.—Abscesses in this region should be opened early. The elastic ligature acts well in many cases, but the ideal treatment is to incise the tissues on a grooved director, dissect out the tract and close it with sutures, or curette it well and keep it packed with iodoform gauze. Use hydrogen dioxide on sinuses that cannot be cleaned out well and keep them packed with gauze.

Anal fissure is a linear ulcer, in the margin of the anus, which is kept sore by frequent passage of feces, and the constant spasm of the sphincter muscle. The symptoms are remarkable for the severity of the pain, from so small a

lesion. The manner in which the pain is reflected may lead the patient to attribute her sufferings to disease of the bladder or other pelvic organs. Spasm of the sphincter occasions this pain.

TREATMENT.—Wash out the rectum with a carbolic solution, apply silver nitrate, antiseptic powders or unguents. Paralyze the sphincter by dilatation, or make an incision through the base of the ulcer, dividing a portion, or the whole of the sphincter.

Prolapse of the rectum may be partial, when only the mucous membrane protrudes, or complete, when all its coats are involved. It is most common in children and the aged, due to a weak condition of the tissues. The exciting cause may be anything causing abnormal straining or bearing down. If allowed to continue, the sphincter becomes paralyzed.

TREATMENT.—Reduce the tissues by gentle pressure with the fingers, have patient in the genu-pectoral or the Sims' position. Failing in this, cover the finger with a piece of lint and insert it into the orifice of the rectum and press it in. After reduction withdraw the finger, then remove the lint. To prevent recurrence, support the anus with a "T" bandage or adhesive plaster, applied so as to hold the nates together. The patient should not be allowed to squat while evacuating the bowels, but should stand or lie down.

Under this treatment cases occurring in children and moderate cases in adults may be cured, but more serious cases require surgical treatment. With a thermo-cautery make applications to the tissues, or clamp longitudinal portions of the mucous membrane, cut them off and sear the stump with a red hot thermo-cautery. When the sphincter has become greatly relaxed, a "V" shaped portion of it, also of the posterior wall of the rectum must be removed and the walls sutured together.

Ulceration of the rectum may be dysenteric, syphilitic, tuberculous or malignant. It is most common among the old and is often mistaken for dysentery, as the symptoms are very similar.

TREATMENT.—Wash out the rectum after each stool and use antiseptic and anodyne enemata and suppositories, and a strong solution of silver nitrate to the ulcers. Tubercular ulcers require iodo-

form, and syphilitic require mercury and the iodides in addition to the local treatment.

Vaginal Hysterectomy.

Dr. Bryon Robinson gives the following reasons for removing the appendages and uterus (Medical Compend):

1. The uterus is useless without the appendages.

2. The uterus does not get rid of its inflammation, endometritis and metritis for from six months to two years after the operation.

3. The uterus with its inflamed tissue is a source of pain.

4. The uterine walls are almost always diseased with diseased tubes and should be removed.

4. (a) The uterus is a point where disease cannot only start but resist.

5. So far I cannot see that it does not weaken the pelvic floor to perform vaginal hysterectomy.

6. The menopause seems to be easier when the uterus is entirely removed than when only part is removed.

7. Recovery after vaginal hysterectomy is much smoother than it is after removing the appendages through the abdomen.

8. Vaginal hernia is much less after vaginal hysterectomies than it is after removing the appendages per abdomen.

9. It is not conservative gynecology to retain diseased organs.

10. It is said that sentiments of the patient are against removal of the uterus. So was the patient's sentiment against removing tubes and ovaries a few years ago, but "sentiment" can be taught out of the patient's head, and also a gynecologist cannot go by what a patient says, but by experience and pathological conditions.

11. It is, according to my observation, that the neurosis following removal of the uterus, for bilateral diseases of the appendages, is less than it is after removal of both appendages only.

The matters to avoid in vaginal hysterectomy are the wounding of the bladder, rectum or (any bowel) and ureters. The operation should be learned on the cadaver or one should assist a skilled gynecologist at say 25 operations, when the technique will be slowly acquired. Vaginal hys-

terectomy, skillfully performed, is a very safe operation. What cases should be performed vaginally?

1. All pelvic suppurating cases.

2. All pelvic diseases which do not reach above the pelvic brim.

3. Ectopic pregnancy if it be in the pelvis.

4. All cases possessing tumors, growths or swellings which extend above the pelvic brim, should be attacked per abdomen.

Milk the Cause of Nervous Headache, or Migraine.

According to the editor of Modern Medicine the free use of milk as an article of food is one of the most prolific causes of migraine (nervous or sick-headache) the writer has had many opportunities to demonstrate in the treatment of patients suffering from this disorder. The simple prohibition of milk has cured many sufferers from this most distressing ailment. Examination of the stomach in these cases generally shows that it is dilated or prolapsed to such a degree as to cause retention of the food beyond the ordinary period.

That milk leads to decomposition in the stomach and the production of poisons by the absorption of which sick-headache and other distressing symptoms are produced, is doubtless due to the fact that it contains, as ordinarily received by the consumer, such multitudes of microbes. Professor Conn found that the milk obtained at Middletown, Conn. contained, within two or three hours after being drawn, from 330,000 to 9,000,000 microbes per ounce. The milk supply of Boston was found to be infected to a much greater degree, as many as 135,000,000 germs being found per ounce is some specimens. The milk of Madison, Wis., during the month of May and June, was found to contain 90,000,000 microbes per ounce.

The milk supply of European cities has been found infected to a much higher degree, the number of microbes being rarely less than 150,000,000 germs per ounce, and often reaching as high as 600,000,000, and sometimes to the enormous number of 5,400,000,000, in a single ounce.

The number of different kinds of microbes found varies from a half dozen or more to as many as fifty in a single locality. One german investigator found sixty-nine different kinds of microbes in a series of cheeses. These germs give rise to the so-called "ripening" of cheese, as it has been found that cheese cannot be made from boiled or sterilized milk.

Unresolved Amygdalitis.

In a paper with this title, read before the Northern Ohio Medical Society, July 8, 1896 published in the New York Medical Journal, September 26, 1896, Dr. Howard S. Straight, of Cleveland, relates in detail the history of two cases of tonsillar inflammation, presenting the ordinary symptoms and local signs of acute amygdalitis. The ordinary local and constitutional treatment for this condition having failed to bring about the desired improvement, Dr. S. was led to examine the chest. In both cases he discovered evidences of "apex catarrh," the possibility of which, as a cause for the non resolution of the tonsillar inflammation, he had overlooked at previous visits. In speaking of the second case he says:

"Upon close questioning, when she returned three weeks after being discharged as cured (?) from the acute amygdalitis, she told me that before the onset of the acute trouble she had felt very much tired out and that she had lost a few pounds of flesh within the last three months. If these two facts had been ascertained when she first presented herself complaining of her tonsil, my suspicions as to her chest would have at once entered my mind. Had I at this first visit prescribed Benzosol or creosote or guaiacol for her, and overlooked entirely any treatment for the tonsil, I would have saved the patient three weeks of suffering and myself a deserved humiliation. If I had the reputation of giving little thought to the importance of apex catarrh in diseases of the ear and upper air-passages, if I had not insisted in season and out of season upon the importance of this constitutional condition in Cleveland at least, any such error on my part could be more easily explained. As to the pathology in a case

of this kind I have little to say, for it seems to me that the pathological process is no different from what it is in acute, follicular amygdalitis in a healthy patient, but that for some reason the products of inflammation failed to be absorbed. I am equally at a loss to explain the wonderful improvement that occurs as soon as the patient is given some form of creosote. I don't wish it to be understood that every case of acute follicular amygdalitis in a patient suffering from apex catarrh pursues such a course as the cases reported. A certain proportion do pursue the anomalous course referred to, and they are difficult to understand if studied from the local standpoint only. The treatment early in the course of the disease need be no different than in the ordinary case, and yet the giving of Benzosol in small doses could do no harm if there is any suspicion of a localized bronchitis. Neither could any harm result from the administration of Benzosol if, after treatment with ordinary remedies for a few days, the tonsillar inflammation fails to pass away. By so doing the patient is given the benefit of the doubt in any event. If after acute follicular amygdalitis in which Benzosol is given on the suspicion that it was necessary, the patient's temperature and pulse are carefully observed and an examination of the chest is made and nothing found, the remedy can be discontinued. In such a case it is as good as any remedy with which I am acquainted. On the other hand, if a localized bronchitis is found, the best possible remedy, in my opinion, has been administered. The purpose of my paper has been accomplished if the necessity for a careful examination of the chest in cases of unresolved amygdalitis has been impressed upon you, and, indeed, in any disease of the ear or upper air-passages.

Successful Extirpation of a Tuberculoma of the Brain.

Professor Kroenlein reports a case of conglomerate tubercle which he removed successfully, making the fifteenth case of this variety of tumor thus far operated upon. The prognosis of brain tubercle is generally very unfavorable, and the results of operations, as von Bergmann

has shown, no better. This is due to the rarity of primary tuberculosis of the brain and also to the fact that usually the solitary tubercles are most frequently multiple. The technique of the operation is very difficult, and there is great danger of disseminating their contents and causing a tubercular meningitis. Fourteen cases of brain tubercle had been operated upon up to the time of publication of this case. Of this number four recovered, one of these dying after six years of genito-urinary tuberculosis. Seven died shortly after the operation, in four of which the tumor was not found. This makes the mortality 50 per cent. Kroenlein's patient was a deck-hand, forty-three years of age, whose father and sister had died of tuberculosis. Eleven years previous to the operation, an empty beer-keg had fallen upon the left parietal region and had left a linear cicatrix on the scalp. During the year previous to the appearance of focal symptoms he had frequent attacks of severe headache and vertigo. Five months before the operation the focal symptoms occurred in the form of an epileptiform convulsion without loss of consciousness, limited to the right side of face and right arm. These recurred at frequent intervals. Later a preasias of the right arm and side of face appeared, and the patient stuttered. From these symptoms a diagnosis of a focus, in all probability a tubercle, in the lower two-thirds of the left ascending frontal and parietal convolutions, was made because the trauma, received eleven years previously, should have given rise to symptoms earlier, had there been a depressed fracture of the internal table. The operation took place July, 6, 1895. A large osteoplastic resection of the skull was made according to Wagner, exposing the lower two-thirds of the above-named convolutions. A conglomerate tumor about the size of a hen's egg, composed of six to eight separate tubercles, each the size of a cherry, was found at the site of operation in the cortex. They were shelled out separately and the wound closed. Healing by first intention occurred. Four weeks after an epileptiform convulsion involving the entire body occurred. On October 26, 1895, the patient was enjoying good health, there was slight paresis of the right arm and right side of face. The speech had also

improved greatly. There had been no further convulsions.

Surgical Immunization Compared with Susceptibility and Predisposition to Infection.

The term surgical immunization refers to that change in a part or the whole of the organism, by which there is conferred an examination, to a greater or a less degree, from the consequence of any surgical procedure. This may come about without any therapeutic agency whatever, and may be the result of ordinary or normal development of the organization. On the other hand changes may ensue from pathological processes of various kinds which shall have a protective influence against any untoward influence from surgical interference; and inflammation may prove a safeguard subsequently against injury.

While there is sufficient ground to account for the development of inflammation in some cases without tracing it to bacterial origin, and perhaps in other instances the bacteria may be a concomitant rather than a cause of inflammation, yet the experimental results go to prove that in some manner not very well defined changes take place, by which ptomaines are produced in connection with leucomaines.

As a counterpart to the agencies of immunization it devolves upon us to study the modification of susceptibility and predisposition to infection. I employ the word infection, in its ordinary signification, as the invasion of a wound by septic germs, such as interfere with the normal progress of healing or induce suppuration. In Foster's Encyclopædic Medical Dictionary it is defined as "the act or process by which disease is set up in an organism, by the implantation of morbid germs from without; or of a part of the organism, by the conveyance of such germs from another part." The advanced bacterial school may consider this term, "germs," as entirely too

*Abstract of paper read before the Medical Society of Virginia, at Rockbridge Alum Springs Sept. 10th, 1896, by J. McFadden Gaston, M. D., Atlanta, Ga., Professor of Principles and Practice of Surgery, Southern Medical College, Ex-Chairman Section on Surgery and Anatomy, American Medical Association.

general in this day of exact designation diseases by their appropriate bacilli, but for the purpose of understanding the relations of these different modifications of the organism, it is not requisite to go into minute details.

I make the distinction between susceptibility and predisposition as passive and active conditions, demanding, respectively, greater or less force to produce an effect. The observance of hygienic precautions in all respects affords the best protection against diseases, and in like manner the avoidance of all vicious habits which may impair the powers of the organism, places the body in the most favorable condition to resist the depressing influence of surgical operations.

As a corollary to this presentation of the claims of immunization as related to susceptibility in infection, the following inferences may be drawn:

1. That various agencies are at work in rendering the human organism to a greater or less extent free from the injurious impressions of surgical procedure.

1. That local and constitutional influences operative in conferring immunity, and the environments of individuals, with their habits and customs of life exert great control over the vital powers.

3. Certain marked changes in the conditions of the nervous system, constituting shock, in course of surgical operations, may be averted by proper measures in advance, and in default of such precautions, should be corrected by vigorous means of treatment.

4. That the immunity for normal structures in operative work, which was supposed to be given by germicidal solutions has proved to be a delusion and a snare, and that they are only admissible all septic contamination of the tissues.

5. That a preliminary examination of in the functions of vital organs should precede surgical operations of every kind, and that efficient correctives should be resorted to for their derangements. The issue of the case depends materially upon proper means of preparation for an operation.

6. It is not essential for the management of a surgical case, that the patient be placed in a hospital, but cleanliness in private quarters, with proper nursing, may secure entirely satisfactory results,

by conforming to the ordinary surroundings of the patient.

7. A thorough comprehension of the reciprocal relations of immunity and susceptibility, should lead to the adoption of conservative measures in the practice of general surgery, and the use of the most radical and aggressive measures when indicated by the nature of the case.

8. Those appliances which may promote surgical immunization should be adopted, and those means which lessen susceptibility and predisposition to infection are warranted in all cases of surgical interference.

Some Distressing Affections and Their Treatment.

By ROBERT C. KENNER, A. M., M. D., Chicago, Ill.

All diseases are distressing. They vary in this element in the degree that they carry incapacity for the usual course of life or pain in their train. Other conditions also add to the distressing character of affections. If a disease is likely to leave a patient permanently affected, or the prognosis of that disease is grave, or if the course of a disease is marked by any very agonizing symptoms, it is of course more or less distressing. This is particularly true of skin diseases. * *

A class of affections which are peculiarly distressing are those which are attended with pruritus. There is no distress more dreadful than pruritus. Those physicians who have treated many skin diseases in which this is a symptom, are well aware how distressing indeed it is. Those who have seen patients who have pruritus ani and pruritus vulvæ have noticed the agony these impose. There can be no more dramatic picture of distress than is seen in a patient who is suffering with pruritus vulvæ. The intense itching comes on at the most inconvenient times and the affliction is almost unbearable. The same can be said of pruritus ani. Thus many skin diseases cause frightful visitations of pruritus. Many cases of eczema are particularly dreadful on account of the great pruritus entailed.

The profession for a great many years has sought a remedy which would allay

if not cure the elements of pruritus in these cases. All the local anæsthetics have been given a trial and have not offered us what we sought for.

Within a short time we have been given a remedy which has proven efficacious in these diseases. I refer to Unguentum Resinol which is an anti-pruritic and sedative, and at the same time decidedly anæsthetic and antiphlogistic. This remedy has been tried and found eminently efficacious in all pruritic skin troubles, pruritus ani, pruritus vulvæ, eczema and urticaria. It is also of value in all diseases of the skin where there is inflammation. It lessens the capillary congestion of the skin at once. This action would of itself establish its usefulness. It is not irritating in any sense and can be applied to the skin or to mucous surfaces without danger or disadvantage. It is very efficacious in eczema, in which disease its application brings immediate relief from the itching, and at the same time a curative process begun. As a remedy for hæmorrhoids it is very efficacious, and particularly marked and happy is its action where the hæmorrhoids are itching, or where pruritus ani complicates the trouble. Unguentum Resinol is now procurable on physicians' Prescriptions from druggists. A few illustrative cases in which Unguentum Resinol was used will give an idea of its action and effect.

N. T. N——, aged seven, had an aggravated form of eczema capitis, which had been troublesome for nearly four months. She suffered greatly with intense pruritus and in spite of herself she would scratch her head. This produced bleeding, tore up the tissue anew and made her head worse. I put her on the following treatment: Unguentum Resinol was put all over the diseased scalp completely covering the entire eczematous surface to the thickness of a sheet of brown paper or deeper. Over this was applied a silk handkerchief and tied in a manner to retain it. She was given internally a mixture of iron and quinine. On this treatment she made a speedy recovery. Her pruritus did not annoy her after the first application of the Unguentum Resinol. The Unguentum Resinol was applied every night and morning.

Mr. L. F——, had a distressing case of pruritus ani. This trouble produced

the most intense itching and almost drove him mad. He was a merchant and this made the trouble all the more inconvenient. He came to me for treatment, and declared he had tried everything with no avail. I put him on Unguentum Resinol. I told him to apply the Unguentum Resinol after washing the parts thoroughly, twice daily. In a week, he told me, he had never experienced such relief, and after a month's continuous use he was well.

Mrs. B. B. L——, had hemorrhoids which troubled her considerably. They not only caused pain, but they also caused much pruritus, and gave her a great deal of agony. I put her upon Unguentum Resinol. This was applied pure to the hemorrhoidal surface. This relieved her pain and itching very quickly. She soon obtained relief which often the usual applications failed to effect.

In conclusion let me say, that I regard Unguentum Resinol as a most important contribution to therapeutics. Those who give it a trial will join me in saying that Unguentum Resinol fills truly a long felt want. Certainly it cannot be denied, that it possesses great and superior merit and that our capabilities are increased by its introduction.

Capital Operations in Country Practice.*

The greatest enemy of mankind is the incompetent physician; and he is incompetent who is not equal to his environments. The country doctor must necessarily be his own counsel and support.

By equipment we do not mean the trappings of the office nor the glittering array of instruments in the case, but the filling of the head and heart. A jack-knife, even in clumsy hands, if guided by wisdom is a safer and better instrument than is the most polished cutting instrument in the hands of him who has digital skill only. But it is freely admitted that the well stored head, the skilled hand and the polished instrument is the more desirable combination.

To say these reflections are but grum-

*Read at meeting of the Noble County, Ind., Medical Association by Dr. Norman Teal, Kendallville, Ind., Sept. 3d, 1896.

blings of the forgyism of the dark past would be a denial of the facts of history—history made brighter and clearer by the light of the present.

And you will all bear me witness that no contention is herein made for adherence to the primitive methods and conditions intimated in the history of Dr. Baker's case. On the contrary all agree that no man in this year 1896 would be justified in operating under the dim light of half a century ago.

The purpose of this paper is to show the possibilities and the duties of the practitioner of the present be he situated wherever he may. And also to emphasize the fact that every practitioner should be able to stand alone in most cases, and especially in emergencies, and that upon the country doctor this obligation is the more binding because he cannot so readily obtain the aid of others as can the city practitioner.

If an inferior must practice let him go to the city. He will not only do better there for himself, but is less likely to harm his patients. And then, too, the quack and the weakling is less in the public eye in city than in country.

By the way, the gossips of the country are the most harmful antagonisms of the profession. Exclude them from the sick room, or forbid their presence at an operation and their imaginary reports are generally apocryphal if not spectral. Admit them and their pretended true reports are too often grossly false.

But enough, even too much, of this speculative preachment.

Can an abdominal section be as safely ventured in the ordinary country home as in the well appointed hospital? Yes. Can a joint be as safely invaded and thereafter treated in the home as in the hospital? Yes. Can operations for hernia, amputations, removals of bone, etc., etc., be as safely undertaken and as successfully treated at the home as at some some distant hospital? Yes.

Yes, all capital operations, to say nothing of minors, can be as safely made and the after treatment as successfully rendered at the ordinsry home as in the ordinary hospital, because the requisite aseptic and antiseptic measures can be as completely established and as thoroughly maintained in the one as in the other.

It is a matter of clean surroundings,

clean hands, clean instruments and a clean feild of operation. No practitioner of this day needs any reminder either as to the details required in bringing about or the necessity for such conditions.

But some may say the home room can not be made clean and put in proper condition for treatment of patients requiring abdominal sections. To such it is sufficient to say, personal experience and observation, as well as the experience and observations of others, are convincing of the fact that the home is the ideal place for treatment of such cases.

Yes, the home is even the better place! Here the silent, relentless destroyer, nostalgia, can not come. In the hospital his grim spectre too often hovers over the patient, always with bad and sometimes fatal effect.

The life of many a brave soldier has been borne down and out by homesickness. And many a one has escaped from hospital and rushed into battle to break its spell. The hospital is the culture-filed of nostalgia. There is no cure for this disease but home; and the same specific is the only preventive.

The patient who can enjoy visiting, traveling, sight-seeing, "shopping" and the like may well go and come at pleasure. A trip from home is often the panacea for such, and quite as often affords relief to the weary dispenser of futile drugs.

And the patient without a home, and the one whose home is but a mockery, a mere den of dirt and stench, should find an abiding rest in the hospital. In fact the hospital should be reserved for the homeless and destitute.

But every physician owes it to himself, to his patient and to his neighboring professional associates to advise against the hospital in all cases where a comfortable home can be had.

Goods Results Following Urethral Resection.

Dr. Eugene Fuller, of New York, read a paper on this subject before the American Association of Genito Urmary Surgeons, June 3d, 1896.

He stated that during the past year he had encountered two cases in which, owing to the extensive destruction of the urethral canal, he had originally expected

to be obliged to establish an artificial route (either perineal or hypogastric) in order to ensure a satisfactory and permanent outlet for the vesical contents. In both of these cases, however, by resorting to a very radical and extensive excision of the diseased urethral areas, he was able to restore the normal urinary function and to leave the urethral canals apparently permanently of good calibre. In one of the cases the excised tissue included the entire bulbous urethra, fully an inch of the penile urethra anterior to the bulb, and the anterior half-inch of the membranous urethra. In the other case an inch and three-quarters of the urethra was removed. In this second case the tissue removed included the bulbous urethra and the anterior portion of the membranous urethra. The first case was operated on about a year ago, and has been under observation ever since. Although the urethra is somewhat tortuous, it admits freely an 18 A. and shows no special tendency to contract. The second case, which was done about ten months ago, admitted a No. 17 A. easily four months after the operation; since that time, Dr. Fuller said, he has not had an opportunity personally to examine the patient, although he has heard from him that he is all right and in no apparent need of surgical attention.

Abdominal Section for Tubercular Disease.

Dr. McArdle, at the recent meeting of the American Association of Obstetricians and Gynecologists, formulated in a terse manner what has already been done by surgical means for the relief of women suffering from tuberculosis of the generative organs. There is no doubt that tubercular disease of the female genitalia is more frequent than is generally supposed. Every portion of the genital tract may be affected, the order of frequency for the various portions being the tubes, body of the uterus, ovaries, vagina, cervix, and vulva. The tubes are affected in nearly all cases, the body of the uterus in about three-fourths of the cases and the ovaries in about one-half of all cases. Tuberculosis of the body of the uterus is not at all a rare affection and has been frequently discovered in autopsies upon

phthisical subjects. It can be the only focus of disease in the body, but it is generally associated with disease of the tubes and is generally secondary to disease of that organ. Of all the female genitalia, the vulva is the least liable to tubercular infection. The author then dwelt upon the etiology of tuberculosis of the female genitalia, after which he detailed the various ways by which the disease might be caused or transmitted. The treatment of tuberculosis of the vulva, vagina, and cervix did not come within the scope of the paper. The destruction of the tuberculous focus by fluid or solid caustics had been advocated by some surgeons, and if these means were not satisfactory extirpation of the part was recommended. We had a very efficient means for the removal of the tubercular ulcers of the vagina and vulva in the application of the tincture of iodine. They rapidly disappear under its use. In case of failure, however, excision could be practiced. When the cervix is involved, and not the body of the uterus, the method of treatment advised for the vulva and vagina should be given a fair trial, but if it prove ineffectual, no time should be lost in amputating the cervix. When the endometrium is involved there is a diversity of opinion as to the best method of procedure. It has been recommended to first curette the organ and remove all evidence of disease. The iodoform suppositories are introduced into the uterus. If there should be a recurrence of the trouble removal of the organ is advised. If we bear in mind that tuberculosis of the body of the uterus is so frequently associated with the same disease in the tubes and ovaries, it seems to Dr. McArdle that having once ascertained the existence of tubercular disease in the uterus, it is our duty to look for a similar condition in the tubes and ovaries, and, if found, it behooves us to waste no time in curetting the uterus and treating it with iodoform, but to proceed at once to the performance of an abdominal section for the removal of the uterus, tubes, and ovaries. This heroic method of treatment is advocated in primary disease of these organs. In a case complicated with tubercular peritonitis there would be no special danger in removing the tubes and ovaries. We all know how many cases of that disease have been cured by

section and drainage. We could then curette and treat the body of the uterus.

Tabes Arrested in Its Course by Amaurosis.

Dr. Paul L. Reiss, in the "New Orleans Medical and Surgical Journal," calls attention to the special form of sclerosis of the posterior columns, by presenting a case of Tabes gradually getting blind and in which the symptoms of the affection are limited to an Argyll Robertson pupil, and the absence of the "knee jerks." There was a double of the atrophy with complete loss of sight in one eye, while the other was gradually failing. As soon as the amaurosis set in the tabes was arrested in its evolution.

It is Benedikt, of Vienna, who was the first to notice the relation existing between that form and atrophy of the optic nerves, while Duchenne deBoulogne had already seen such cases.

Martin, of Geneva, and Dejernie, of Paris, verified this fact, and the latter states that the reason why this law has escaped the attention of the neuro-pathologist, is because these classes of patients go to consult oculists, and on the other hand that the symptoms of the pre-atoxic period of tabes (so well studied by Fournier) were little known.

The pain sometimes disappears, and in one case of Dejernie the patella reflex reappeared after it had been absent for some years. With deDejernie he states that an inco-ordinate ataxia, from the day that the motor inco-ordination appears, stands great chances of never becoming blunt. The motor inco-ordination is not ameliorated in those rare cases where there is amaurosis, a fact established by Dejernie, but denied by Benedikt. The pains may come on some years after the atrophy.

Pathological anatomy gives a congestion and diminished size of the roots at the lumbar enlargement, with a sclerosis of the columns of Burdach about the zone of Lessauer. The posterior part of the columns of Goll were attacked at the cervical region in a case examined by Dejernie. The optic nerves were gray atrophied and completely degenerated. How the retinal sclerosis checks the lesion of the posterior columns is un-

known. The retina is attacked first and the lesion of the nerve diminishes as the brain is reached. Romberg's sign is always absent.

The prognosis is very unfavorable, as it always terminates in complete amaurosis. The atrophy established by Fournier was verified in this case, as syphilis had been acquired 39 years ago.

Dr. R. appends a brief description of two cases, the subject of a lesion by Dr. Dejernie at the Salpêtrière in Paris, published in the *Medicine Moderne* of March 20th, 1895.

Dangers of Decomposed Food.

Of all food that rapidly begins to decompose, mackerel, remarks a contemporary, is perhaps one of the most common. Being both cheap and usually plentiful when in season, it is largely consumed. Putrefaction sets in very rapidly, especially about the gills of this fish, often as soon as it is taken out of the water. The poisonous principle that has been extracted from mackerel is called hydro-collidine, a very violent poison, so powerful that the seven thousandth part of a grain will cause death in a small bird. From beef and other flesh meat, when bad, a poisonous body known as vendine has been extracted. Sweetbread, when decomposed, yields a principle named collidine. Putrescine is another poisonous substance that has been extracted from meat flesh and fish when putrid. Mussels are a common article of diet largely eaten by some classes, and they frequently occasion fatal cases of poisoning. This is attributed to a principle which has been extracted from the mussel called mytilotoxine, also a powerful poison, a grain and a half being a fatal dose. Cheese that has become rotten often causes serious illness. Milk, that universal diet of daily use, may also produce, in hot weather, the same poison. Its symptoms are nausea, vomiting, and fever, followed by great prostration, and it often causes diarrhœa among infants. Sausages, another form of common food, often give rise to hurtful effects due to animal poison. Being frequently composed of imperfectly cooked and old pork and beef, in which putrefaction has already begun, they sometimes produce very alarming effects after eating.

Functionless Organs--Are there Any? A Possible Use of the Appendix Vermiformia.

Dr. N. L. North read a paper with this title at the New York State Medical Society, Oct. 15th, 1896.

He said that it was now coming to be understood that many organs formerly looked upon as rudimentary and functionless were really part of the hæmopoietic system. Thus, the tonsils, which had been so freely excised in the past, were now considered the guardians of the parts below, protecting them from the invasion of pathogenic organisms. A noteworthy example of a supposed functionless organ was to be found in the vermiform appendix, but he was of the opinion that the numerous follicles of the appendix indicated clearly that it possessed a glandular action. Probably its chief function was as an automatic closer of the ileo-cæcal valve, thus preventing the regurgitation of foul gases. A study of the vital statistics of the Brooklyn Board of Health for the past fifteen years would show a steady increase in the death rate from appendicitis and allied diseases, from which it is fair to infer that medicine had not kept pace with surgery in the treatment of these disorders. It was probable that the trouble was to be found in an improper treatment at their inception, the medical man of the présent time throwing up his hands and unconditionally surrendering his patient to the operating surgeon. The intelligent and cautious use of mild purgatives and enemata and above all the bold use of opium, not simply for its sedative action, but for its curative effect in peritoneal diseases, would, he felt confident, make a better showing in the treatment of appendicitis.

Splints for Nasal Fractures.

At the last meeting of the American Association of Railway Surgeons, a paper was read by Dr. Jesse Hawes, of Greeley, Col., describing two new and valuable Splints for Nasal Fractures and deformities. One splint is intended for cases of nasal fracture, in which there is a drawing upward of the point of the nose or of the alae. It consists of a piece of No. 15 spring brass wire, bent first into the

form of a rectangular letter U, the arms of which are about an inch apart, and long enough to extend from the centre of the upper lip to a point beyond the crown of the head. Opposite the supra-orbital ridge, a sharp angle is formed; this angle is to permit the splint to slightly enter the orbital cavity, just beneath the orbital ridge; the angle is the means of the fixation of the splint against the supra-orbital ridge, and is one of the most essential features of the appliance. The lower end of the splint is bent forward, away from the lip, the distance of half an inch. The splint is fixed firmly by the side of the nose, under the orbital ridge, and to the head, by a band of rubber adhesive plaster, carried horizontally around the head. The point of the nose, or alae, can be brought down to their normal positions by sutures passed through the mucous membrane and cartilages of the alae, and fastened to the transverse portion of the splint.

Lateral displacements of the nasal bone can be held in place by lintene pads, placed between the side of the nose and the wire.

The second splint is a modification of the first. The modification consists in attaching to the lower end of the splint, by a simple, effective, mechanical arrangement, intra-nasal splints covered with rubber. The intra-nasal splints will hold out to their normal position, depressions, the result of traumatism. Both splints are entirely original, in particular the first fills a field in nasal surgery that has heretofore been vacant. The second is a great improvement over the cotton plugs, rubber tubes, etc., and other normal position. The Doctor also suggests its use in old depressions after breaking up vicious bony unions.

After a careful study of the instruments sketched, we are of the opinion that they will be found efficient, and also a valuable addition to the armamentation of the surgeon. The splints are manufactured by C. Truax & Co., 75 Wabash Avenue. Their cost should be very moderate, as they are so simple.

One part of camphor to ten parts of olive oil used hypodermically is effective in ether collapse. One grain of camphor may be given.

Bullets in the Brain and the Roentgen Rays.

A. Eulenburg (British Medical Journal) relates two cases in which it was possible to locate bullets in the intracranial cavity by means of radiography.

Case 1. A man, aged 18, accidentally shot himself in the head with a revolver. The bullet entered $3\frac{1}{2}$ cm. above and 2 cm. in front of the attachment of the ear. There was complete unconsciousness until the following morning. On the third day a left-sided homonymous hemianopsia developed, and then a left hemiplegia. The bladder was temporarily paralyzed. The hemianopsia disappeared on the tenth day, and the hemiplegia gradually got better, with the exception of the lower part of the leg. The patient was lame, but could walk. At the end of the seventh week Eulenburg found the lower face muscles weaker on the left side than on the right, and also the left arm weaker than the right. The gait was faltering, and the left leg stiff. Movements of the foot and lower leg were only just possible. Sensation was considerably affected. There was pain in the back of the head. Progressive improvement ensued. Eulenburg thought that the bullet had penetrated to the right of the sella turcica, injuring the right crus. By radiography Buka showed that the ball was in the middle fossa of the skull to the right of the middle line.

Case 2. A man, aged 33, attempted suicide ten years ago. The revolver wound was in the hinder part of the right temporal region. At first there were signs of intracranial pressure. For the first four years only slight symptoms were noted. Attacks of pain in the head supervened, and the patient thought that the bullet must still be present. He was then in an asylum for five years, and discharged as incurable. After his discharge he seems to have been able to work. When seen by Eulenburg the man was pale and wasted. Hardly a trace of bodily or mental symptoms could be made out. There was occasional headache in the right supraorbital and temporal regions. There was thus no clinical evidence that the bullet was still present. It was, however, shown by Buka, by means of the Roentgen rays,

that the bullet was situated in the middle fossa of the skull behind the right orbital fissure.—Brissaud and Londe (Sem. Med., June 24th, 1896,) report a case in which a man had been struck by a revolver bullet (calibre 7 mm.) in the middle of the left frontal eminence on August 4th, 1895. Various symptoms followed, and finally a spasmodic left hemiplegia of both limbs and the face remained. The upper fibres of the facial, the motor oculi, and the masseteric nerves were not involved. The Roentgen rays showed the outline of the skull, the frontal eminence and sinus, the maxillary sinus, petrous and malar bones, zygoma, orbital cavity, etc. The bullet was seen situated in the posterior region at the level of the second temporal convolution, probably above the tentorium. This position corresponded exactly with the direction of the track deduced by the resulting paralyses. The chief interest besides the exact localisation of the missile, consists in the fact that the bullet, being in the temporal region, could not be the cause of the hemiplegia. The latter was due to the section of fibres met with by the bullet—that is, it had a capsular, not a cortical, origin, and therefore could not have been benefitted by any operation. An exposure for an hour and three-quarters was given, and the image would have been still clearer but for a slight clonic movement of the head.

Electro-Diagnosis and Electro-Therapeutics Simplified.

Dr. H. T. Patrick, of Chicago, says: Electro-diagnosis is limited to the affirmation or denial of a lesion of the lower neuron; that is, of a lesion of the motor cells in the spinal cord, or of the nerve fibre, the peripheral nerves springing from those cells. A lesion of this neuron causes the reaction of degeneration, and this, stripped of all unnecessary technicalities, may be recognized by two variations, from the normal, a loss or very considerable diminution of faradic contractions, and the slow wormlike contraction of the muscles in response to interruption of the galvanic current. In the electrotherapeutics of organic disease of the nervous system, applications of electricity through the brain may be entirely

discarded as useless. Electricity through the spinal cord is little better. In diseases of the peripheral nerves it probably hastens recovery, and that current is to be chosen which the better causes muscular contraction. In functional nervous disease electricity is of more practical value than in organic affections, but it is almost impossible to determine what proportion of this good effect is due to mental impression—to suggestion. The galvanic current is chosen for facial and costal neuralgia, and sciatica; the faradic for lumbago, hysterical anæsthesia, paralysis, and pain; the galvanic for exophthalmic goitre and sometimes for neurasthenic headache and backache. For facial spasms, tic, spasmodic torticollis, tremor, and chorea, electricity is useful aside from the mental effect.

Asepsis and Antisepsis, Its Origin, Development and Relation to Modern Medicine and Surgery.

Medicine and surgery have made more advancement in the last twenty years than in the twenty centuries preceding. The Egyptian art of mumifying their dead, which was a process of rendering the body aseptic, or impenetrable to putrefactive micro-organisms by the use of antiseptic resins, balsams and aromatics, suggested an idea of a distributing element in the atmosphere, or that the atmosphere itself acted destructively on the dead animal organism. But it is probable that the ancients practiced their art of embalming with only an empiric knowledge, knowing the conditions necessary to success but not the reasons. The development of their art to its ultimate capabilities remained for modern times, when ancient and medieval science had advanced from the obscurity of a groping empiricism to the broad light of knowledge basked upon diligent inquiry and the comparison of ascertained facts.

The discovery of the actual existence of minute animal and plant life was made by Anthony Von Leuwenhoek in 1675. The astute old scientist had little idea of the importance of his discovery to medical science, but he laid the foundation upon which nearly all of modern practice is founded.

Passing over a period of two hundred

years we come to what might be called the Listerian epoch. In the London Lancet of July 27, 1867, there appeared an article by Lister entitled, "A New Method of Treatment of Hernia in the Presence of Atmospheric Air." This was the first step taken by him in the direction of many brilliant results that soon followed. A few months later he wrote an article on "Antiseptic Principles in the Treatment of Wounds." This article marked the beginning of the true antiseptic era, and it was the occasion of the first use of the word Antiseptic in the sense of opposed to putrefaction.

Others contemporary with Lister had observed that uncleanness in surgery was fatal to success, and sometimes to life, but none like him had yet collated all the known facts and phenomena, condensed and focussed them into one grand axiom, and then discovered a means to convert the erstwhile useless knowledge into balm for suffering mankind.

Asepsis is absolute surgical cleanliness or the entire absence of germ life from wounds. Antisepsis is the method by which this condition is obtained. They bear to one another the intimate relation of cause and effect. It would be difficult to say where one begins and the other ends, for even in the so-called aseptic surgical procedures antisepsis is made use of in the shape of moist and dry heat or sterilization.

Lister used carbolic acid in his first experiments and pronounced it the best agent yet discovered, and in 1893 he gave it renewed prominence by the announcement of his abandonment of corrosive sublimate in favor of his first choice.

Some of the advantages of the carbolic acid are that it mixes with all of the bodily secretions, thus penetrating all parts of a wound and insuring perfect disinfection; (this is not true of mercuric chloride which is neutralized by albuminous solutions). It has powerful affinity for epidermis which facilitates its penetration of the skin; it is also anæsthetic in its effects. To be effective as germicides solutions of carbolic acid should be at least $2\frac{1}{2}$ per cent. strong. In 1881 Koch created quite a stir in the scientific world by announcing his belief in the superior efficiency of corrosive sublimate as an antiseptic. But now after fifteen years of almost universal pre-eminence over all other agents, corrosive

sublimate has settled down to its proper place among the recognized antiseptics. A long series of experiments conducted at the Johns Hopkins Hospital resulted in a limitation of the scope of bi chlorid as an antiseptic.

The agent which is finally to win the palm of perfection as in antiseptic must do it in open contest with all its opponents arrayed on equal footing in the clinical arena, with broad minded and unprejudiced scientific men as judges. That we can now defy those subtle dangers that a few years ago held back the hand of the most daring surgeons from operations vital to recovery, and with perfect confidence invade regions that in pre-antiseptic days were barred to the most skillful knife, is due to the increasing knowledge of the simple laws of asepsis and antiseptis.

Experience with Pilocarpine in the Treatment of the Uræmia of Bright's Disease.

Charles J. Proben, M.D., in an interesting article read before the New York County Medical Society; 1896, published in the New York Medical Journal, for July 18, 1896, briefly reviews the theories of uræmic toxæmia and their methods of relief. Jaborandi is considered an unreliable drug to use, and pilocarpine muriate is the salt he recommends for speedy and prompt action. Some of the unfavorable results obtained have been attributed to other alkaloids present in jaborandi. The physiological action of pilocarpine is decided principally exerting its influence on the skin and the salivary apparatus, which suggested its use for the relief of uræmia; to divert this poison from the circulating blood and secrete it as inert matter. Especially the sweats are well marked and relief is to be expected were it not for the depressing effects of the alkaloid upon the heart and circulatory apparatus. The author holds that uræmia especially which is most prevalent in the later period of life, is accompanied by vascular changes in the arterioles and the cardiac muscular fibres. Such cardiac changes, are as a rule unable of detection by our crude methods, and we must infer them to exist. The pulse as a rule is no criterion of the latent condition of the

cardiac muscle, and hence in all senile conditions this degeneration must be inferred to exist. The unfavorable results attributed to the depressing effects of pilocarpine, must imply a primary cause existing in the vascular apparatus. Probably the only indication for the administration of pilocarpine in these cases is where cardiac hypertrophy with a full bounding pulse exists. Cardiac changes, either express or implied, as such as progressive valvular changes, degenerations, fatty, cerrohotic, the so-called senile heart, cardiac insufficiency, etc., form a distinct contraindication to the use of pilocarpine. It will be seen that all these are unable of detection by physical examination thence in old age where symptoms are present they must be inferred to exist. The unfavorable results obtained by the author were all in old people, where the drug exerted its deadly effect upon the cardiac muscle producing rapid vascular depression, with impeded pulmonary circulation producing uræmia and quick fatal results. These cases cited show that even one-tenth of a grain is not a safe dose to administer in the senile state. Various other methods of relieving uræmia are mentioned, especially great praise being bestowed upon intravenous saline infusion which has been very successful in the author's experience. It is considered that pilocarpine is a decided cardiac depressant and of little use in the uræmia of old people; in fact that here it should be condemned.

Operation in Cases of Incomplete Abortion.

Dr. Anna M. Stuart in the New York Medical Journal for Sept. 2d, proposes a new method of operation in cases of incomplete Abortion at two months. The advantages claimed are a perfect evacuation of the uterine contents with a minimum of shock, pain, and hæmorrhage. The details of the methods are as follows:

The woman is placed crosswise of the bed (made as hard as possible) in dorsal position on a Kelly cushion. The external parts and vagina are thoroughly washed with green soap and warm water, and the hair trimmed off. This is followed by an antiseptic vaginal douche. The bivalve speculum, freshly boiled, is inserted and opened, and the screws are set.

The internal os is usually patulous enough to admit Bozeman's intra-uterine douche. Through this a hot creolin solution is allowed to flow, always watching to see that the return current remains free. Then all loose clots and débris are removed by the dull curette. The cavity is again washed, and this process is repeated until nothing remains but the firm decidua tissue, which clings to the uterine wall and could not be removed without much dilatation, causing much pain to the patient. The hot creolin solution is an excellent hæmostatic, and is allowed to flow until it returns white. Finally, the uterus is packed from the fundus to the external os with iodoform gauze. The first gauze is withdrawn, thereby wiping out the cavity, and a second piece is firmly placed so as to stop all hæmorrhage.

The patient will usually endure this treatment without a groan. She is now put back to bed and given quinine, strychnine, and sometimes repeated doses of ergot. If pains come, she is told to endure them, and no opiate is allowed.

Now, what happens is this: The inert uterus is stimulated to contract. The blood, unable to escape, distends the cavity and flows in between the decidua and the uterine wall, dislodging the former. Finally, the internal os dilates, the gauze is expelled, and with it all the uterine contents.

Another creolin intra-uterine douche, and if endometritis exists the gentle use of the sharp curette and a gauze drain, complete the work.

Contraction and involution of the uterus go on rapidly.

Vegetable Substitutes for Milk.

Some years ago Sir B. W. Richardson, the eminent London Physician, prophesied that the time would come when milk, as well as all other forms of animal food, would be derived directly from the vegetable kingdom. Many savage tribes obtain supplies of milk from vegetable sources.

The milk of the cocoanut furnishes a satisfactory substitute for cow's milk to the teeming millions of many tropical countries; while the cow-tree of South America provides a vegetable milk so rich in fatty matter that it might be more properly termed vegetable cream.

All nuts contain fats in a state of emulsion, and also a large percentage of proteid matters. By crushing and mixing with water, a solution closely resembling milk may be made from most kinds of nuts. The amount of fat and of proteid substances contained in such a solution does not differ very greatly from the proportions in which they are found in milk. The chief deficiency is in sugar. By the addition of a proper amount of sugar, preferably levulose or maltose, a very perfect substitute for milk may be produced. Such a preparation may be made from almonds in such a manner that it will contain all the elements of nutrition, and in proportions better adapted to the wants of human beings than does cow's milk. The fat which it contains is present in a state of perfectly natural emulsion. The proteid or albuminoid elements, corresponding to the albumin and casein of milk are practically identical with the casein of mother's milk, and form in the presence of an acid extremely fine and soft curds, which break up with the greatest readiness. In this respect it is even superior to the natural food of the human infant.

In experiments which we have made with nut milk we find that it has a delicate, delightful flavor, with a suggestion of its nutty origin, but resembles cow's milk very closely indeed. It agrees with the most delicate stomachs, and can be taken with perfect impunity by persons who cannot take cow's milk or cream even in the smallest quantities without suffering more or less severely in consequence. Added to cow's milk in proper proportion, lac vegetal, or nut cream, prevents the formation of hard curds in the stomach, as when the cow's milk is used alone. This renders it an exceedingly valuable food for infants,—vastly superior to any infant's food which has been devised.

Nuts are unquestionably the vegetable analogue of meat and other animal foods, not only containing all the food elements to be found in animal products, but in finer and more digestible form, more delicately flavored, and wholly free from the deleterious elements which abound in meat, and which are closely associated with all forms of animal food. Nut and fruits are stated by the most eminent comparative anatomists to be the natural

diet of man, as they are of his primitive relatives, the gorilla, the orang-outang, and the chimpanzee; hence it is not surprising that nuts should prove to be not only a perfect complement to a healthful dietary, but a food which is not only agreeable to the palate but acceptable to the stomach, even when it is so diseased that other less natural foods are rejected.

The general prejudice against nuts on the ground of their indigestibility is the natural outgrowth of the attempt to use them in a perfectly natural state with no preparation except such as can be given by the teeth. With an entirely healthy stomach and sound teeth, this preparation is generally sufficient, but experience has shown that the digestibility of most nuts is as much improved by artificial preparation and cookery as is that of vegetables and other food-stuffs.

Hydrozone in Gastric and Interstinal Disorders.

By JOHN AULDE, M. D., Philadelphia, Pa.

A period of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent, and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing partially every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no

antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum, and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned, though, in view of the fact that hydrozone is a more concentrated product, and with a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medical peroxide of hydrogen.

In gastritis, either acute, subacute, or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased output of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objectionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted hydrozone (one to thirty-two) and lie on the right side so as to facilitate the action of the stomach in discharging its contents*. The antiseptic properties of hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach in a healthy condition for the absorption of nutritive pabulum. All forms of fer-

*In chronic cases with a large output of gastric mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of hydrozone.

mentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later, small portions of solid food can be ingested, but all food stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch granules, breaking them up, and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contain, in addition to the nascent oxygen contained in hydrozone, a percentage of glycerin which favors osmosis and assist in re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera, the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduction as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of which will be understood when we consider the large number of micro-organisms which grow under these favorable conditions with such remarkable rapidity.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects. The irrigation may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed this communication will prove serviceable to a large number of practitioners who have hitherto found serious difficulties in counteracting the mephitic influence of bacteria in this class of disorders, and the clinical virtues of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment.

Adolescent Insanity and Masturbation, with Exsection of Certain Nerves Supplying the Sexual Organs as the Remedy.

J. H. McCassy, M. A., M. D., of Dayton, O., in an article in the Cincinnati Lancet-Clinic, Oct. 3d, 1896, says: The management and the control of the reproductive instincts are a source of great annoyance to many youths. About three-fourths of the insane confined in our asylums today practice this evil habit. This aggravates mental depression, counteracts the effects of treatment, induces relapses, and in many cases interposes a barrier to recovery.

Having had some experience in the treatment of the insane, the writer readily calls to mind the fact that a large number of young men between the ages of seventeen and twenty five years were brought to the insane asylum afflicted with adolescent insanity complicated with masturbation. Many of these patients were violent and destructive, and it was necessary to "muff" them constantly during the intervals in which they were not under the direct supervision of the attendants. With the addition of tonics and sedatives a large per cent. of this class of patients recovered. The restraint by muffling during the night and close watching during the day prevented the practice of this evil habit, and thereby the great barrier to recovery was removed.

There was another class of patients at the asylum affected with insanity of adolescence complicated with masturbation. The disease assumed the form of stuporous melancholia. The patients were not violent nor destructive, and restraint by "muffling" was not employed at night. The bed linen yielded evidence of their

practice of masturbation, and, as might be expected, the per cent. of recoveries was small.

The writer thought he saw a chance to save these weaklings of our race, and invented an operation calculated to suspend temporarily the sexual appetite and activities, permitting restoration of the physical and mental health in these cases. It bids fair to be a new star that will far outshine antitoxine, hydrophobia lymph, X-rays, and even the vaccine of the immortal Jenner.

Lawson Tait has often removed the ovaries for no other purpose than to prevent pregnancy. Many men have been cured of certain forms of insanity by castration; many more could be if they would submit to the operation. But few men will consent to have permanently removed the God-given power of copulation. Men in the full enjoyment of their vigor and manhood justly rebel against loss or mutilation of their sexual organs. But when the system has been invaded by disease, which threatens destruction of both body and mind, they should gladly submit to an operation for the temporary suspension of the sexual activities in order to restore physical and mental health.

For the purpose of suspending the sexual powers for a period of from one to three years, the writer conceived the idea of dividing certain nerves supplying the sexual organs. At the suggestion of the writer, Dr. T. C. McCassy, of Concordia, Kansas, made several experiments on dogs and horses. He found that when from one-half to two inches of a nerve was excised it would require a period of from one to four years for it to bridge over and restore power to the distal portion. In man a divided nerve, when left to itself, will usually reunite in a period of twelve to eighteen months. But this period can be lengthened by removing a longer section of the nerve. If the conditions change and it is desirable to restore the function of the nerve at any time, the cut ends of the divided nerve can be freshened and coapted by means of sutures and union effected in one to three months. In the experiments made on dogs and horses by Dr. McCassy, of Concordia, the sexual appetite and power were completely abolished for a period of from six to thirty-six months, according

ly as the nerve was simply divided or one-half to two inches of it removed. Slight atrophy of the testicles took place while the nerve was bridging over, but they rapidly gained in vigor after the nerve had reunited. No case failed to reunite where only a short section of the nerve was removed.

In man divided nerves have been reunited after a year and a half and the function return in the distal portions. The place that may be bridged over varies, and it is not so great in man as in the lower animals.

Each spinal nerve arises by two roots, an anterior or motor root, and a posterior or sensory root. The pudic nerve arises from the lower part of the sacral plexus. The dorsal nerve of the penis is the superior division of the pudic nerve. The dorsal nerve of the penis, in company with the dorsal artery of the penis, passes through the suspensory ligament, and running forwards, is distributed to the glands (Gray). It will be seen that the nerves presently to be described are both motor and sensory, and are concerned in motion and sensibility, while the sympathetic nerves preside over nutrition.

In the first place, by destroying the nerve supply to the testes sexual power would be lost. This would remove the desire for masturbation and produce impotency during the period of lost power. The patient would then have time to gain physically and mentally, while the repair in the nerves was going on.

1. There are the muscular branches of the pudic nerve. These supply the erector penis muscle on each side. To divide this would cause muscular impotency. It is found along the crus penis to enter the erector penis muscle.

2. There are the nerves of sensation to the penis. The one to divide in this case would be the dorsal nerve of the penis, a branch of the pudic nerve. It passes along the crus penis through the suspensory ligament along with the dorsal artery of the penis. It gives sensation to the penis. The destruction of this nerve would cause anæsthetic impotency. Friction of the glans penis would no longer produce stimulus.

3. Then there are the nerves that go to the testes and give them functional activity as secreting organs. These pass along with the spermatic artery in the

cord and come from the sympathetic. They would have to be isolated with much care. It would not do to divide the genital branch of the genito-crural, found in the spermatic cord. This would only paralyze the cremaster muscle—a matter of small moment.

To conclude; The operation for division or exsection of from one-half to one inch of the dorsal nerves of the penis is a simple and almost bloodless operation, and is the one to be selected. It would cause anesthesia and destroy the possibility of masturbation by friction.

Softening of the Brain During Whooping Cough.

Yorke, in the *Edinburgh Medical Journal*, refers to the many cases of cerebral disturbance which occur during pertussis, and points to the fact that we know but little of the nature of the anatomical changes that take place in the brain. A great majority of the cases which develop paralysis, blindness, disturbance of speech and other localized affections, recover, while but a few of the fatal cases come to the autopsy table.

The author describes the case of a seven year old girl with a bad family history, both parents having died with phthisis. The girl had had pertussis for several weeks in a moderately severe form, when suddenly the severity of the disease increased, both in the number and the severity of the paroxysms. Symptoms pointing to brain involvement soon followed. The patient complained of feeling tired, and slept more than usual. In a few days it was noticed that she could not walk well—there appeared to be a weakness of the left leg. At this time the face was also noticed to be involved. It was slightly drawn to the right. Saliva escaped from the mouth. The child laughed a great deal without cause. There was no fever. The pupils were dilated, but responded well. She slept a greater part of the time, yawned a great deal, and cried loudly when she awoke. But little food was taken. There was now, one week after the onset of the nervous symptoms, right-sided facial paralysis. The tongue pointed to the left. Swallowing was difficult. The left leg and arm were completely paralyzed.

There was no rigidity of the neck or of the muscles of the back. The apathy increased. The patient could evidently understand, but would not speak. During the following four days all the symptoms increased in severity. Cheyne-Stokes' respiration was followed by comatose state and death. There were no convulsions.

Autopsy showed marked congestion of the pica, and a general hyperæmia, with two areas of softening in both hemispheres. The area in the frontal lobe was about two cubic centimeters in diameter; it was located three cubic centimeters from the apex of the frontal lobe, and one and one-half cubic centimetres from its inner wall. The area in the parietal lobe was somewhat large, and occupied the white substance. Microscopic examination showed only the usual inflammatory changes. No micro-organisms were found. There were no tubercles to be seen on any portion of the brain. The cause of the inflammatory process was probably a repeated hyperæmia and stasis, following upon the paroxysms. This in turn was followed by diseased blood vessels transudation into the tissues and inflammation. The child being a weakling, and with a bad family history, was unquestionably less able to resist the general effects of the disease.

A Case of Cerebro-Spinal Meningitis Complicating Gonorrhœa Treated by Antikamnia.

The concluding remarks from the above article, by G. S. Leggatt, M. R. C. S. England, L. S. A., taken from the *Lancet*. (London) are interesting from both therapeutic and physiological standpoints.

"Remarks.—1. This is a rare complication of gonorrhœa, and, as far as I can find, is not mentioned in any of the books which refer to the subject; but bearing in mind the similitude of structure between the meninges and the joints there seems no reason why they should not be occasionally attacked in a manner similar to the latter.

2. "Antikamnia is a remedy said to possess analgesic, antipyretic and anodyne properties. Its dose is three to ten grains, and it will be observed that the doses I gave were large ones; but the

symptoms were extremely urgent, and it is interesting to note that there was no depression. During its exhibition the pulse improved in force, and the administration of the drug reduced the temperature to normal, and seemed in this respect to be greatly superior to that of phenacetin.

3. "As to the diagnosis it is difficult to know how the symptoms, which were of a most pronounced kind, could be accounted for on any other supposition than involvement of the fibrous textures of the spine and cranium. That the disease did not more definitely and more permanently attack the pia mater and arachnoid is probably due to the prompt administration of the antikamnia and salicylate combined, which seemed to me to prevent the optic neuritis and other more obvious and serious consequences of an established meningitis.

Repeated Abdominal Sections.

Before the London Medical Society Oct. 12, 1896 J. D. Malcolm read notes of twenty-six cases in which abdominal section had been performed a second time. A table was presented containing particulars with regard to the nature and result of the operations. The list included, it was stated, every case in the operator's practice in which abdominal section had been performed a second time, and the object of the paper was to illustrate the number of complications, accidents, and causes of death which may occur in abdominal surgery. There were seven deaths in the series: in one rupture of the incision occurred, one was a difficult operation for hysterectomy, in one the patient was much exhausted by cancerous discharge at the date of the operation, in one the operation was done for chronic obstruction, and in the other for acute obstruction of the bowels, the gut being in the latter case gangrenous at the date of operation; in one, which was a left nephrotomy five years after a right nephrotomy, the child was extremely feeble from prolonged pyonephrosis. In the seventh case the operation was for the removal of the remains of the uterine appendages, and the patient was extremely exhausted at the date of the second operation, which followed the first at an interval of two months. At the time of

the second operation there was an abscess in the pelvis around the ligature applied at the first operation.

Intravenous Injections of Mercuric Chloride in Diphtheria.

Dr. W. J. Pyle, in the Medical News, suggests that the method of intravenous injection of mercuric chloride applied by Baccelli to the treatment of syphilis might be useful in diphtheria. It could without inconvenience be used in conjunction with any local applications and with the antitoxin treatment. The author points out that the therapeutic value of mercuric chloride in diphtheria is universally acknowledged, and he thinks it quite possible that intravenous injections of that agent might combat the disastrous effects of the toxin, and that the bacilli themselves may be enfeebled by the extra amount of blood so antisepticated that is called into play by the inflammatory changes in the mucous membrane. By this method the maximum influence of the salt is obtained without untoward salivation or distressing gastric or cutaneous symptoms. A small dose administered intravenously is more potent than a much larger one given otherwise. The fluid is prepared as follows: R Mercuric chloride, gr. xv; sodium chloride, gr. xlv; water, $\bar{x}$ xxxiv. A small quantity of alcohol may be added to facilitate solution; the mixture should be well stirred and filtered until perfectly clear. It is advisable, but not necessary, to sterilize it. A ligature is applied above the elbow, and any one of the superficial veins in the neighborhood may be chosen. The median cephalic and basilic veins are the best for the purpose. The point selected and the surrounding area should then be thoroughly scrubbed and disinfected with a 1 in 1,000 solution of mercuric chloride or a 5 per cent. solution of carbolic acid. The needle, previously sterilized, is plunged directly towards the centre at the point selected, and a few drops of blood allowed to ooze out, assuring entrance into the vein; the barrel is then carefully applied, avoiding any entrance of air. The ligature should next be loosened and the injection made, only 16 minims of the solution at first being used; the amount is progressively increased to as high as 5j at a dose if necessary. Occasionally, on withdrawal of the needle

there is some extravasation of the blood into the neighboring subcutaneous tissue; but this is absorbed very quickly. Repeated injections can be made into the same vein. Two precautions should always be attended to: First, a fresh solution should always be used, and it should be prepared by the practitioner himself in order that he may be sure that the salt has not decomposed, which is often the case after it has been standing some time. No after dressing is needed, and it is not necessary to cover the puncture with collodion: Secondly, a concentrated solution should not be used. The usual strength should be 1 in 1,000, but in late injections 1 in 800 might be used. In young children it would perhaps be advisable to begin with a dose of 8 minims of the solution, increasing the dose afterwards to 16, 24, and 32.

Ulceration of the Bladder.

Henry Fenwick (The Hospital) calls attention to the existence of what he calls "the simple solitary ulcer of the bladder." It has been revealed by the use of the cystoscope, and this instrument seems necessary to make the diagnosis with any precision; but the symptoms which Fenwick considers suggestive of its presence are repeated causeless sharp attacks of hæmaturia, with increased frequency of micturition, but only during the daytime, with constant penile pain, without venereal history or evidence of stone or tubercle, and with urine clear and good-coloured, of specific gravity of 1.020. Maternal phthisis, extreme vesical irritability at night, and a pale, neutral, murky urine of 1.010 specific gravity he considers point to tuberculosis. When the bladder is examined with the cystoscope, if the simple solitary ulcer is present, the rest of the bladder is seen to be quite healthy; whereas, if the ulceration is tuberculous, in the posterior wall are seen patches of vivid red, with white flakes of necrotic tissue peeling from them. In tuberculosis the capacity of the bladder is materially reduced, which is not the case with the simple ulcer. These simple ulcers are, Fenwick believes, generally diagnosed as tuberculous, since all ulceration of the bladder is often supposed to be of this nature, and

he thinks some of the cases which have been satisfactorily treated by cystotomy and scraping of the ulcerated area have been examples of simple ulceration. A marked feature of the simple ulcer is constant pain at one part of the penile urethra, in some patients increased by exercise, or jolting, or over-holding their water, and a few walk about guarding their penis with their hands to prevent its being shaken or jarred.

The ulcer is found chiefly in young men, and usually close to the orifice of one or other ureter, and occasionally a contact ulcer forms on the anterior part of the bladder just above the urethral orifice and must be carefully looked out for. Phosphatic deposit not infrequently covers the surface of the ulcer. They last sometimes for years, and when once coated over with phosphates, many resist various local applications, so that cystotomy and scraping is generally required. In the female the curetting can be carried out through a urethral speculum and with the aid of electric light, and may be repeated several times. Occasionally they heal spontaneously. Before phosphatic deposit forms on the surface of the ulcer, there is much more hope of doing good without operation. Fenwick advises the use of sandal oil, followed by maltine and cod liver oil, small doses of mercury at night, liberal diet, and fresh air: Several illustrative cases are recorded.

Snuffles in Acquired Syphilis.

Dr. Arthur Cooper. (The Lancet, Nov. 1896), The phenomenon known as snuffles in syphilis is I believe, generally looked upon as peculiar to babies; and it is no doubt true that the rhinitis, which is probably not uncommon in the early secondary stage of acquired syphilis, in most cases passes unnoticed, or only gives rise to symptoms similar to and often mistaken for those of an ordinary catarrh. As anything like the snuffles of inherited syphilis is, as far as I know, quite exceptional in older patients who have acquired the disease, the following instance may perhaps be thought worth recording.

The case was that of a youth of sixteen, who came under my care in April, 1894, for syphilis in the early secondary stage. He had numerous mucous patches in the throat and mouth, and he also snuffled in

breathing like a syphilitic child in whom the symptom is unusually well marked. As showing the pronounced character of the snuffling, I may mention that the patient's father brought him to me in a state of alarm, thinking his son might be about to lose his nose. The nasal discharge was profuse, sometimes mucous, some purulent, and occasionally bloody, but without offensive odor, and it was remarked that the snuffling could not be wholly removed, even temporarily, by blowing the nose. The boy had rather a small nose, and the nasal passages were somewhat narrower than usual. Anterior examination showed general congestion of the nasal mucous membrane, with slight swelling, but no mucous patches or ulcers could be seen, and there were no scabs; no posterior examination was made. The catarrh and snuffling lasted in varying degrees for more than three months, fluctuating apparently according to the state of the throat, where mucous patches continued to come and go for about the same length of time. Both snuffling and catarrh finally disappeared altogether as the throat became healthy under the administration of mercury and local cauterization. The only treatment prescribed for the nose was syringing with a saline solution, which greatly relieved the discomfort in breathing.

The Influence of Acute Alcoholism on the Normal Vital Resistance of Rabbits to Infection.

Dr. A. C. Abbott has recently contributed to the Journal of Experimental Medicine a very interesting report throwing considerable light on this subject. He says:

The question of the effect of alcohol when used as a beverage, which is now being investigated by the committee of fifty, is in this article confined to its influence on the normal vital resistance of animals exposed to various forms of infection. The pyogenic cocci, *i. e.*, the *streptococcus pyogenes* and the *staphylococcus pyrogenes aureus*, and the *bacillus coli communis*, have been thus far the infectious organisms with which the experiments have been conducted. Cultures of these germs were inoculated into groups of alcoholized and non-alcoholized animals,

so that, by a comparison of results, the difference could reasonably be referred to a reduction of vital resistance brought about by the alcohol administered.

The alcoholized rabbits were kept daily in a state of intoxication. The dose necessary to positively produce intoxication ranged from five cubic centimetres to fifteen cubic centimetres of pure ethyl alcohol.

From the results of these experiments the author concludes: That the normal vital resistance of rabbits to infection by *streptococcus pyogenes* is markedly diminished through the influence of alcohol when given daily to the stage of acute intoxication. That a similar, though by no means so conspicuous, diminution of resistance to infection and intoxication by the *bacillus coli communis* also occurs in rabbits subjected to the same influences. And that, while among the alcoholized rabbits inoculated in various ways with *staphylococcus pyogenes aureus*, individual instances of lowered resistance are observed, still it is impossible to say from these experiments that in general a marked difference is noticed between alcoholized and non-alcoholized animals as regards infection by this particular organism. It is interesting to note that the results of inoculation of alcoholized rabbits with the erysipelas coccus correspond in a way with clinical observation on human beings addicted to the excessive use of alcohol when infected by this organism.

Throughout these experiments, with few exceptions, it will be seen that the alcoholized animals not only showed the effects of the inoculations earlier than did the non-alcoholized rabbits, but in the case of the streptococcus inoculation the lesions produced (formation of miliary abscesses) were much more pronounced than are those that usually follow inoculation with this organism.

Treatment of Eclampsia.

Mangiagalli (Edinburgh Medical Journal) in a lengthly paper to which is appended a valuable statistical table, deals fully with the various modes of treating eclampsia. Obstetric treatment in his practice occupies the first place, medical means being regarded as preparatory or adjuvant. Preventive therapeutics are very beneficial in removing the conditions

which are the expression probably of the auto-intoxication, and consist in milk and intestinal disinfectants, diuretics, etc. The medical treatment (bleeding, purgation, morphine, chloral, chloroform, veratrum viride, or diaphoretics) is purely symptomatic, but is the only one possible in *post-partum* eclampsia, and in other conditions is a valuable aid to the obstetric intervention. Bleeding, followed by the subcutaneous or endovenous injection of the normal saline solution, has much to recommend it, but it has not been employed sufficiently often to enable us to form a just estimate of its value. The speedy evacuation of the uterus constitutes the most important means of treating eclampsia. In *intra-partum* eclampsia it is a good rule to terminate labour when the conditions permit, and even to anticipate these by means of multiple incisions of the cervix. In eclampsia in pregnancy the induction of labor by the rupture of the membranes is indicated along with the use of morphine, or chloral, or veratrum viride in large doses. If these means fail, then forced dilatation of the cervix is to be preferred to the deep incisions of Dührssen. In some very bad cases even Cæsarean section may be a justifiable operation, especially if the fœtus be full time and alive. Every operative intervention must take place with the patient deeply anæsthetised.

Pathology and Treatment of Gunshot Wounds of the Abdomen.

Dr. Paul Klemm gives an able digest of the literature upon this subject, the result of his own experiments upon dogs and the conclusions to be drawn from both of these. (Annals of Surgery.) Up to the time of our Civil War but little effort was made to operate upon gunshot wounds of the abdomen. Since then much has been accomplished through experimental work and clinical observation to elucidate the subject. Klemm gives the statistics of various writers from Otis to the present time. In general, American and German surgeons advocate laparotomy as early as possible, while many of the French surgeons led by Reculus attempt to show that the expectant method of treatment gives a far smaller percentage of mortality. This

view is based upon the fact that after injury of a hollow viscus, the perforation is tamponned by a plug of mucous membrane, which, by its prolapse into the wound, tampons the same. Reculus further taught that through contraction of the muscular coat of the gut, the edges of the wound were approximated and that the plasticity of the serous surface soon provided a closure. The former theory Klemm shows by means of his experiments upon dogs to be based upon inadequate knowledge. He found such a plug of mucosa but also that it did not prevent a leakage of the intestinal contents when the slightest pressure was made. Two cases observed clinically by Sonnenburg and von Bergmann show the fallaciousness of Reculus's latter view. The results of Klemm's experiments upon dogs, thirty-two in number, coincide with those of Parkes and Schachner,—viz., that in the majority of gunshot wounds of the abdomen viscera are injured. The clinical observations of Lühe in 152 cases show that in only three was there no injury of the viscera. In animals local signs of perforation, such as prolapse of a viscus and shock, are rarely observed, whereas in human beings they are both quite frequent. In the 152 clinical cases of Lühe there were perforations, most frequently multiple, in 110 cases. Local signs of injury were observed only eight times. General symptoms of shock or beginning peritonitis were far more frequent. Two factors determine the size of the wounds in the gut. (1) The angle at which the bullet strikes it. (2) The diameter at the point struck. In almost every case hæmatoma is formed in the abdominal cavity which serves as pabulum for the micro-organisms escaping from the visceral wounds. The author believes that when death is not immediate, due either to hæmorrhage or to what we speak of as shock, it is caused by septic intoxication, as Wagner first pointed out. The toxins are formed through the action of the germs which have escaped with the fæces upon the hæmatoma which is always present. In other cases adhesions occur, abscesses are formed, which sooner or later rupture and cause death. He condemns the Senn gas-test, stating that it may cause additional escape of intestinal contents. Klemm advocates immediate operation in all cases in which

the condition of the patient will permit. He advises first exploring the wound of entrance, and, in case it be found to enter the abdominal cavity, to open the abdomen through an incision in the median line. An already existing peritonitis or a patient weakened by septic intoxication serve as contraindications.

Splitting the Capsule for the Relief of Nephralgia.*

Pain in the kidney usually denotes a gross lesion, the character of which is indicated by other manifestations of the surgical affections of the kidney.

Hydro-nephrosis, cystic diseases, and impacted calculus are the least painful, while pyo-nephrosis, suppurative nephritis, peri-nephritis, peri-nephritic abscess, tubercular disease, tumors and calculus in the pelvis of the kidney commonly produce severe pain.

An analysis of these cases shows that in all those where pain is a prominent symptom the capsule is affected. An examination of the nerve supply of the kidney furnishes the reason for this. Sensitive nerves are supplied to the capsule and pelvis, while the parenchyma is singularly insensitive, as is evidenced by its ability to undergo complete destruction without pain, while on the other hand the most trivial injury to or irritation of the pelvis or capsule will provoke violent pain.

We infer therefore that when pain is a pronounced symptom in any lesion of the kidney, the pelvis or capsule is encroached upon. In the conditions which have been mentioned, where pain is a symptom, there are other symptoms and physical signs concomitant with pain, which usually enable the surgeon to determine the nature of the malady.

But there are encountered, however, occasional cases in which pain is a most prominent symptom, but where there are lacking the physical signs and changes in the urine which would lead to a conjecture at one of the conditions already mentioned exists. Such cases simulate renal vesical calculus or the like, and colateral organs are frequently involved in

this pain, such as the bladder, penis, and testicle; but scrutinizing and repeated examinations of the urine and physical signs presented, fail to verify such an assumption.

I know of no condition of the pelvis provoking sufficient pain to call for surgical investigation that would not afford abundant evidence of an inflammatory or mechanical injury competent to account for the existing pain. But there may be violent pain arising from an irritation of the surface of the kidney or its capsule with a complete absence of other evidences of kidney disease. Many cases have been operated on for stone in the kidney without finding them, but followed by relief from the pain.

Here the pain was due to some obscure lesion which was relieved by splitting the capsule in searching for the stone.

The capsule may have been contracted or the kidney tissue swollen and tense, or some other condition existed which caused irritation of the sensory nerves of the capsule.

I am constrained to believe such cases are not altogether rare. To them is given the name "nephralgia," and they are relieved by splitting the capsule of the kidney.

CONCLUSIONS.

1st. Nephralgia is not always associated with a demonstrable lesion.

2nd. When other evidences of kidney disease are wanting, the pain is perhaps due to a too tight capsule.

3rd. Nephralgia may and frequently does simulate symptoms of gross tissue changes or mechanical irritants.

4th. Where severe and persistent pain in the kidney exists without other evidence of renal disease, exploratory operation is indicated.

5th. When inspection, palpation and needle punctures fail to disclose a condition sufficient to account for the pain, the capsule should be freely opened.

Early School Life.

Is it a usual thing in those little boys' schools which are conducted by ladies to begin school at nine in the morning, keep the children steadily at work until twelve, and then take them for a whole hour's walk, without giving them either luncheon or rest? The question is asked

*Abstract by George Ben Johnson, M. D., Richmond, Va. Professor of Surgery and Clinical Surgery in the Medical College of Virginia, and Surgeon to the Old Dominion Hospital.

because at least one lady's school for little boys, which is by way of being a very superior school indeed, carries out this line of discipline with unflinching sternness. It should hardly be necessary to point out that such a method of training boys of the tender age of six to nine is not consistent with normal growth, development, or health. To begin with, continuous lessons for three hours, at such an age, involve a very great mental and physical strain, and cannot but produce marked nervous fatigue. Then to add to this fatigue by insisting upon an hour's walk before any food is given is to further exhaust the nervous system, and to bring about a condition of impaired appetite and enfeebled digestion. All competent educationists have agreed with physiologists in this, that the first few years of school life should be made up largely of play. The three hours, from nine till twelve, for example, ought to be divided into at least three parts. At twelve o'clock, instead of a walk, luncheon should be given, or, at any rate, play for twenty minutes or half an hour, and then luncheon; but most certainly not a formal walk. Play, we repeat, should form a very great part of the education of little boys; and in no case should work be uninterrupted for long periods, or formal walks or other physical exercises be carried out when the children must, in the nature of the case, be beginning to be decidedly hungry.

The Influence of Pregnancy on Diseases of the Heart.

Jaccoud describes a case illustrating his contention that the existence of heart disease does not in every case, as maintained by Peter, constitute a contraindication to marriage. The patient in question suffered from a long and severe attack of acute rheumatism before marriage, with signs of cardiac mischief. Two years afterwards she married, and was able to go through three successive childbirths and one miscarriage without any distressing cardiac symptoms. After her fourth pregnancy she began to feel short of breath, and after the fifth delivery symptoms of acute asystole, with dyspnoea and hæmoptysis, set in. There was no doubt that permanent damage to

the heart had resulted from the repeated pregnancies, and a double mitral lesion with tricuspid incompetence was diagnosed. Pregnancy is always liable to cause serious disturbances of the cardiopulmonary circulation, and to throw additional work on the heart. Patients who suffer from mitral lesions, which rapidly affect the lesser circulation, frequently manifest towards the fifth or sixth month "gravido-cardiac" symptoms—namely, dyspnoea and hæmoptysis. Still it is obvious that a diseased heart up to a certain point may suffer no inconvenience from pregnancy. A too hard and fast line should not be drawn in advising or withholding consent to marriage. The wishes and ideas of the patient should be considered, and also the depressing and injurious effect upon the heart of withholding consent. The degree of the lesion and the absence or presence of gravido-cardiac symptoms should be noted, the latter forming a decided bar to marriage, though the effect of treatment upon this condition should determine the final decision. The occupation and surroundings of the patient, the possibility of her taking prolonged rest if necessary, should be considered. A milk diet is of great importance; two or three litres should be taken daily from the second or third month of pregnancy. This is a powerful aid to the circulation by reason of its diuretic action, and not only are the gravido-cardiac symptoms warded off but the appearance of albumen in the urine is prevented.

Central Amblyopia as an Early Symptom in Tumor at the Chiasma.

Dr. E. Nettleship (Ophthalmological Society of the United Kingdom) has seen about ten cases in which failure of vision at or near the centre of the field in both eyes with little or no early ophthalmoscopic change occurred in women. Three of them turned out to be cases of ordinary tobacco amblyopia, and in one it seemed probable that alcohol was the cause. Some five cases remained in which there was no reason to suspect a toxic cause, and in which later events made it probable that coarse intracranial disease had caused the visual failure. Three of these patients had died with cerebral symptoms, and in

the fourth a *post mortem* examination revealed a cystic tumor involving the chiasma, optic tracts, and other parts at the base of the brain. The loss of central field in the earlier stages was more abruptly defined, and less constant in position than in tobacco amblyopia, and the symmetry was less precise both in time and degree than in the latter disease. In a later stage there was mental failure, loss of memory, and irritability, with occasional headache and varying paralysis of one or more ocular muscles. The changes at the disc at most only amounted to pallor of the outer half until a late stage of the disease. If these cases be seen at an advanced stage the visual field will often have the form of a temporal hemianopia more or less. The case in which he had obtained a *post mortem* examination was that of a lady whose sight had failed while she was suckling her fourth baby. She had a black spot before the left eye, and, later, before the right. There was a central scotoma of oval shape beginning just outwards. There was no peripheral loss of fields. Her vision and mental condition got worse, and she died after about three years. At the *post mortem* examination the brain was a good deal flattened on both sides. At the base there was a large membranous sac filled with fluid lying on the sella turcica, and extending forwards to the cribriform plate of the ethmoid. The wall of the cyst was loosely attached to the hinder part of the frontal lobe, to the median part of the temporo-sphenoidal lobe, and to the hook of the uncinate convolution; it reached back as far as the middle of the pons. The chiasma was incorporated in the front wall of the cyst; the right optic tract could be traced back to the pulvinar; the commissural fibres could be followed a short distance towards the other side, as also the fibres which pass to the cerebrum. The left optic tract could not be found; it was so flattened as to be unrecognisable.

The Serum in Typhoid Fever.

Widal and Sicard have by prolonged experiments ascertained that the serum of blisters, likewise the serous effusions of pleurisy, peritonitis of typhoid patients, are agglutinated. Sometimes urine has

the same property. Once or twice they found it in bile. Their researches on milk confirmed the result of those made by Achard and Bensaude. Experiments made with seminal fluid and cerebro-spinal fluid were negative in results; those with saliva were the same. Widal has made a special study of serum albumin, of serum globulin, and of the fibrinogenous substance of globulin. These substances, when isolated from the typhoid serum, rob it of its agglutinating properties; they lose it in a solution and regain it when precipitated. These researches are by their results interesting not only to practitioners, but also to chemists. To these latter the phenomenon of agglutination may suggest a new reagent to facilitate the delicate study of albuminoid substances.

Double Uterus, with Double Hæmatometra and Complete Absence of the Vagina,

At a recent meeting of the Obstetrical Society of London, Dr. Arthur H. N. Lewers read a paper in which he related a case of a girl, aged 17, who had never menstruated. She sought advice on account of severe pain in the hypogastric region and the lower part of the back. In November, 1873, careful examination under anæsthesia showed that the vagina was imperforate, and *per rectum* that there was a uterus, perhaps a little larger than normal in a virgin of 17, but not much larger. There being no positive evidence of distension, it was decided to watch the case. The patient was kept under observation for more than two years. Ultimately examination showed that the uterus was definitely enlarged, and it was then decided to operate. There was complete absence of the vagina. There was a double uterus, each half of which was distended by retained menstrual fluid. The subsequent progress of the case was satisfactory. The patient was seen in September, 1896. She had menstruated regularly, and was quite free from pain. The only difficulty was to keep the vagina open. The small ring pessary she was wearing was found, after being in three months, to some extent incarcerated by granulation tissue, and an anæsthetic had to be given in order to remove it. It seemed likely that by

changing the pessary rather more frequently than usual, perhaps once a month instead of once in three months, this difficulty might be avoided in future. The question of a preliminary abdominal section in dealing with such cases was discussed, and, though it was not done in the present case, it appeared to the author on the whole to be the right course to adopt.

An Aseptic Injector.

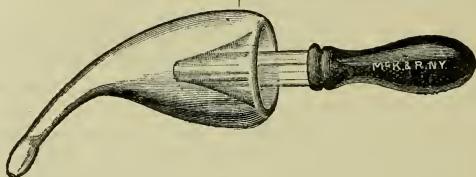
By WALTER F. CHAPPELL, M. D., Surgeon to the Manhattan Eye, Ear and Throat Hospital.

Some objection has been raised to the use of a camel's hair brush, as recommended by me, for the application of the

new compound, oleostearate of zinc, to the nasal passages.

After considerable experimentation, the instrument shown in the illustration was suggested to me by Mr. William J. Evans. The construction is such that the medicine employed can not enter the rubber bulb, being prevented from doing so by the conelike chamber, formed on the principle of a safety ink bottle, thus making the injector aseptic. The rubber bulb limits the amount of force used, which is always an important matter in nose and ear work.

The use of the injector is not confined to semi-fluid preparations or to the nasal passages; in fact, any solution may be employed in it, and where a limited amount of force and fluid is needed, this injector is available for any of the various



mucous passages and also for eye and ear applications.

Directions for nasal use: Draw the fluid into the aseptic injector as you would into a medicine dropper; keep the rubber bulb upward and insert the glass tip into the nostril a short distance; then, tipping the head backward, hold the breath for a moment and press on the bulb. These directions apply to either nostril. When required for other purposes, suitable directions will suggest themselves to the physician.

Neuralgia, Hysteria, Asthma, Spermatorrhœa.

NEURALGIA.—The varieties of neuralgia are almost as numerous as the nerves of the body. Wherever there is a nerve there may be pain. In almost every form Neurosine will be found to give prompt relief and if perservered with the interval of the attack the splendid effects of the bromide of zinc and Cannabis Indica as permanent tonics and other bromides as alternatives may be confidently expected.

HYSTERIA.—The manifestations of hysteria are so infinite in number that Tanner has well said, "Hysteria, simulates almost every known disease." It

so often exists without any pathological lesion and persists after care of the lesion that the practitioner has no resource but the well known antispasmodics, anodynes and nerve tonics, which would only be taken at his direction and which alone in many cases intervene to save the sufferer from the too common resort to opiates. Here Neurosine not only gives prompt relief but offers the best means of cure.

ASTHMA.—The Bromides, Belladonna and Cannabis Indica have been and still are, the sheet anchors in this common and distressing malady. Trousseau, and others after him, was wont to push Belladonna to the limit of toleration in Asthma and thus he secured results equaled by no one of his time. A combination of these always efficient agents in Neurosine has in this disease given more satisfactory results than any other known remedy.

SPERMATORRHOEA.—Self-abuse, Sexual Neurasthenia, etc.—The results in this class of cases annoying alike to the physician and patient are well expressed by a physician eminent in this work, who says, "your Neurosine has given me at least satisfactory results which will warrant me in a further use of it."

The Pathology and Treatment of Suppurative Salpingitis.

Dr. F. F. Lawrence (Mississippi Valley Medical Association, Sept. 18, 1896). The tubal mucosa is a true mucous membrane possessed of all the histological elements of mucous membrane. The fimbriae are prolongations of the folds of mucous membrane, with a few muscular fibres beyond the end of the tube. The closure of the end of the tube is effected by, first, the unfolding of these plicae and the elongation of the muscular fibres with coincident inflammatory exudate, and not by adhesions of the peritoneal surface; second, the formation of adhesions between the fimbriae and other structures; third, embedding of the fimbriae in inflammatory exudate. The closure of tubal ostia results in the forming of circumscribed abscess, the pathology of which is the same as that of supuration with abscess formations in mucous membrane in other parts of the body except for its effect upon important contiguous tissues. Occasionally the uterine end of the tube remains patent, when we have the abscess in the tube communicating with the uterine cavity, through which it may in part discharge its contents. The treatment of pus tubes cannot be fixed by any ironclad rule. Each case must be treated according to the conditions there presented. We must even incise and drain in some cases. Seldom will vaginal section be required, and then only in carefully selected cases. Hysterectomy is indicated in those cases in which we find abscess of the uterine wall, tuberculous deposits, fibroids, or malignant disease of the fundus. As hysterectomy destroys the pelvic floor, it should never be performed except when there is some tangible lesion of the uterus. Abdominal section will be necessary in many cases.

Eucaïne,

Have any of my professional brethren used the new local anæsthetic, Eucaïne? I have been using it in my practice in extracting teeth and for minor surgical operations, and feel like shouting "eureka" after each operation, only, of course, I would not be entitled to use the pronoun "I."

Will report two cases in practice which may be of interest. About three months ago undertook to extract some teeth for Miss B. After I had injected about 20 minims of 4 per cent. solution of cocaine, noticed that she was becoming pale, and on examining pulse, found it very rapid and almost imperceptible. Worked with her over two hours before action of heart and mental condition became normal. About six weeks afterward used $1\frac{1}{2}$ drams of a ten per cent. solution of Eucaïne on same patient and extracted ten teeth with no pain and no bad after effects.

In another case where one drachm of a three per cent. solution of cocaine had produced alarming symptoms and almost caused death, subsequently injected 12 grains of Eucaïne in solution with no apparent bad after effects.

Have used it in several cases for performing minor operations, on persons suffering from organic heart disease with the most satisfactory results. In these cases it was not considered safe to use chloroform or ether. Have injected as much as 20 grains in one person at one time, and in no instance have I noticed any untoward results, as in the use of cocaine.

Eucaïne has just as powerful anæsthetic properties as cocaine, and possesses none of its disadvantages. Another valuable quality, it will keep an indefinite time in solution.

I would be pleased to hear from any one who has had any experience with the drug.

L. HINES, M. D., D. D. S.

Failure Owing to Substitution.

I have read and watched what has been said of Sanmetto, and often wondered why I did not get any results from it in my practice. When I received my September Medical Brief, and again reading of the grand results advertised therein by the Od Chem. Co., I went over the ground to try to find out the trouble. To my surprise I found that all my patients had been furnished and were taking palmetto where Sanmetto had been ordered. I intend to watch this matter more closely.

P. J. GERLACH, M. D.
Spokane, Wash.

Permanganate of Potassium, as an Antidote to Opium.

Dr. A. P. Luff concludes a very interesting review of this subject in the British Medical Journal as follows:

"These experiments demonstrate the selective faculty of the permanganate for morphine in the stomach contents, and confirm Moor's conclusions as to the value of potassium permanganate as an antidote for opium and morphine poisoning. When the quantity of morphine that has been taken is known, I should advise the administration of a quantity of potassium permanganate slightly in excess of the morphine: if it is laudanum that has been taken, and the quantity is known, six grains of potassium permanganate should be administered for each fluid ounce of laudanum taken. If in any case the quantity of morphine or opium taken is unknown, from eight to ten grains of the permanganate should be administered, according to the severity of the symptoms.

"It should be given dissolved in from four to eight ounces of water. The stomach should afterwards be washed out two or three times, at intervals of half an hour, with a weak solution of permanganate, in order to decompose the morphine that has been absorbed and that is being excreted in the stomach. In cases of poisoning by the hypodermic injection of morphine I do not think that the hypodermic injection of the permanganate would be of any use, but the washing out of the stomach with the weak solution of the permanganate should certainly be resorted to. In cases of threatened respiratory failures strychnine or atropine (the former preferably), should be administered hypodermically, in order to stimulate the respiratory centre, and artificial respiration should be resorted to if necessary."

Picric Acid in the Treatment of Superficial Burns and Scalds.

In the British Medical Journal Dr. Power advocates a solution of picric acid as a dressing for burns and scalds.

The solution of picric acid is made by dissolving a drachm and a half of picric acid in 3 ounces of alcohol, which is then diluted with two pints of distilled

water, or, more accurately: Picric acid, 5 g.; alcohol, 80 g.; dissolve; add 1,000 g. of distilled water. This is a saturated solution of picric acid.

The clothing over the injured part should be gently removed, and the burnt or scalded portion should be cleaned as thoroughly as possible with a piece of absorbent cotton-wool soaked in the lotion. Blisters should be pricked, and the serum should be allowed to escape, care being taken not to destroy the epithelial surfaces. Strips of sterilized gauze are then soaked in the solution of picric acid, and are so applied as to cover the whole of the injured surface. A thin layer of absorbent cotton-wool is put over the gauze, and the dressing is kept in place by a thin linen bandage. The moist dressing soon dries, and it may be left in place for three or four days. It must then be changed, the gauze being thoroughly well moistened with the picric acid solution, for it adheres very closely to the skin. The second dressing is applied in exactly the same manner as the first, and it may be left on for a week.

The great advantages of this method of treatment are: First, that the picric acid seems to deaden the sense of pain; and, secondly, that it limits the tendency to suppuration, for it coagulates the albuminous exudations, and healing takes place under a scab consisting of epithelial cells hardened by picric acid. A smooth and supple cicatrix remains, which is as much superior to the ordinary scar from a burn as our present surgical scar is superior to that obtained by our predecessors, who allowed their wounds to granulate.

The publications by Prof. E. Maragliano which have appeared in a number of the leading medical journals of Europe have created considerable interest in his treatment of pulmonary Tuberculosis. The New York Medical Journal of August 15th, in a lengthy editorial, comments favorably on Maragliano's Serum treatment.

Maragliano's Serum is now undergoing clinical tests in a number of our institutions. First supplies of the remedy have come into the hands of Messrs. Lehn & Fink, 128 William St., New York City, who supply it in original vials containing 5 ccm.

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IMPERIAL GRANUM is acceptable to the palate and also to the most delicate stomach at all periods of life.—*Annual of the Universal Medical Sciences, Philadelphia, Penna.*

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It has acquired a high reputation, and is adapted to children as well as adults—in fact, we have used it successfully with children from birth.—*The Post Graduate Journal.*

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Trunk Anæsthesia in Locomotor Ataxia.

Dr. Hugh T. Patrick, of Chicago, read a paper with this title at the recent meeting of the Mississippi Valley Medical Association. He said in nearly all cases of tabes dorsalis there is a band of anæsthesia about the trunk at the level of the nipple. It is, early in the disease, very narrow or even incomplete, or may be represented by a zone in which the localization of touch is not normally accurate. The sensory blunting on the leg, so frequent in tabes, is generally an analgesia. The trunk anæsthesia is essentially tactile, and the pain sense may be quite normal. The band of anæsthesia does not correspond to the cutaneous distribution of the intercostal nerves, but to the nerve fibres arising from adjoining segments of the spinal cord. In some cases there are two distinct zones of anæsthesia, indicating simultaneous involvement of spinal segments at some distance from each other. The borders are inconstant, ordinarily retract on continued testing, and vary in position with the method of examination. The same band of anæsthesia may occur in syphilitic pseudo-tabes, as shown by an illustrative case, as far as known the only one on record. The patient presented nearly all the symptoms of locomotor ataxia, including a wide band of trunk anæsthesia; but diagnosis of syphilitic disease of the cord was made, and under an active specific treatment he made an almost perfect recovery.

Loss of Consciousness in Hysterical Attacks.

According to Dr. A. Pitres there are three periods in a complete hysterical attack.

1. The pre-convulsive period, in which the aura, mental, sensory, or ovarian, occurs.
2. The convulsive period, consisting of the tonic and the clonic spasms.
3. The post-convulsive period, of which the most striking feature is the delirium identical with the mental state which characterizes one or the other of the different varieties of hypnosis.

In the first period consciousness and memory are always preserved, and injury

which might occur during the second period may be prevented by precautionary measures. Preservation of memory explains the ability of the patient to tell the hour at which the attack began.

In the second period consciousness and memory are usually abolished, and the patient has no knowledge of the convulsions.

In the third period consciousness is usually preserved. The patient replies to questions put to him, except in those cases in which he falls into a profound lethargy or into an acute maniacal delirium. He has knowledge of his movements, and yet when the attack is terminated he is ignorant of what he has said and done during this third stage. If he is placed in a hypnotic state he is able to recall the words uttered in the post-convulsive period.

Any one of the three periods may exist alone.

Occasionally, when the second period constitutes the entire attack, the patient may be able to reply to questions, but he has no knowledge of his convulsive movements, and states during severe convulsion that he is in perfect repose.

In rare cases, when the post-convulsive period constitutes the entire attack, consciousness may be partially or totally abolished, and memory may be lost not only in the normal state succeeding, but also in the hypnotic.

The American Association of Obstetricians and Gynecologists at its ninth annual meeting held at Richmond, Va., elected the following named officers for the ensuing year namely: President, James F. W. Ross, M. D., Toronto; vice-presidents, George Ben Johnston, M. D., Richmond, and John C. Sexton, M. D., Rushville, Ind.; secretary, William Warren Potter, M. D., Buffalo; treasurer, Xavier O. Werder, M. D., Pittsburg. Executive council: Charles A. L. Reed, M. D., Cincinnati; Lewis S. McMurtry, M. D., Louisville; A. Vandeer Veer, M. D., Albany; J. Henry Carstens, M. D., Detroit; and William E. S. Davis, M. D., Birmingham.

The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19, and 20, 1897.

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DESCRIPTIVE LITERATURE UPON APPLICATION.

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Mexican Surgery.

Dr. D. H. Galloway, of Chicago, has furnished a series of articles to the Journal of the American Medical Association, from his experience as a railroad surgeon in Mexico. In the last article he states that the surgeon there is frequently obliged to do minor surgery, requiring anæsthetic, and even amputations, without any assistance whatever. The average Mexican physician, like very many in the United States, has a wholly inadequate conception of the meaning of *asepsis* and *antisepsis* and, like the latter, he must be constantly watched when at operations, to see that he does not infect instruments and wounds in his well meant, but unwise, efforts to assist.

A surgeon operating without trained assistants will learn to get along with very few instruments, where he must give, or at least look after, the anæsthetic, do his own sponging, etc., a large number of instruments would likely be confusing.

He recites a case where a rather insignificant wound of the leg became infected with malignant edema, which when fully developed, progressed to a fatal termination with frightful rapidity in that tropical country.

The Doctor attended a Mexican funeral and describes it at length. None accompany the body to the grave except the carriers and perhaps an extra one to superintend the work. The poor are buried in the order of arrival at the cemetery in ready made graves. Every three, five or seven years the ground is reopened for new burials, the bones dug up are supposed to be removed to a vault provided for that purpose, but in reality only the larger ones are so disposed of, the smaller ones serving to help cover up the new comer. The cost of a funeral is only \$6 or \$7—\$1.25 for the permit; \$2.40 for the coffin, and 50 cents each for four cargadores to carry the body to the grave yard.

The Mexican and American methods of burial are contrasted and the description closes with these observations: But is not this in some respects a better custom than our own? The object in putting a body into the ground is, or ought to be, to resolve it into its elements.

There it is put into as light a coffin as possible and buried in dry soil where disintegration will rapidly take place. Here it is put into a strong, sometimes a metallic, coffin, and this is inclosed in an outer box: thus retarding decomposition as much as possible. There a funeral costs \$6 or \$7, here even the poor will spend \$100 or \$200 on a funeral, for coffin, carriages, flowers, etc., when they may be unable to pay the doctor or buy the decent necessities of life. If prejudice is so great that cremation cannot soon be made general, people might, as a step in the right direction, be compelled to use coffins of wicker work or very light wood so that nature's work might be facilitated and not retarded.

In five years, buried in Mexican soil, the body disappears, except the bones. Investigations in our cemeteries would reveal a very different condition. We should not regard with such horror the customs of other people without considering the end sought. The feeling of abhorrence we have for new or strange customs is only relative and disappears when we become accustomed to them, particularly if any good end is attained thereby.

The Monell.

The Jerome Kidder Manufacturing Company, 820 Broadway, New York, are in receipt of the following letter from Dr. John J. Gaynor, of Eureka, Cal:— I have already a triumph to record for the "Monell." I have one case of exophthalmic goiter that resisted galvanism, no matter how or by whose method it was tried. I am well supplied with medico-electrical works, even to the latest, so that when I say I tried all methods it is true. Hence my ordering a "Monell." I could not keep the patient's pulse under 100 with galvanism, and I gave her a month's holiday. She came back with a pulse of 125, and I started with the "Monell", reducing it in one sitting to 84. "An." over arch of aorta; "ca." on cilio-spinal center. Next visit, pulse 94. "Monell" again, pulse 84 at close; next day 94-84; next day 94-82; next day 78-72; next day 76-72. This result has insured my good-will for your house and the instrument. I am very thankful for your trouble in writing particulars about X-ray apparatus.

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An absolutely reliable

Anti-pruritic, Local Antipyretic,

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Emollient and Skin Nutrient.

Resinol, by promptly dissipating capillary hyperæmia, has established itself as the best local application in Erysipelas and other forms of Dermatitis, and as the remedy *par excellence* in all eruptions and irritations of the skin, as Eczema, Herpes, Acne, Psoriasis, Seborrhœa, Tinea, Capitis, Intertrigo, Sunburn, Eruption of Poison Oak, Burns and Scalds, etc. Stops the itching of Pruritus Ani or Vulvæ, Itching Piles, Marginal Eczema, etc., instantaneously, and immediately subdues the fiery inflammation of Vulvitis, Balanitis, etc.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non-toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

OPINIONS FROM THE PROFESSION.

From H. S. CUNNINGHAM, M. D., *Prof. of Gynecology and Clin. Dis. of Women, Amer. Med. Col., Indianapolis, Ind.*: "I have been delighted with the action of RESINOL in Pruritus Vulvæ, Tinea, Capitis, etc."

From F. G. WELCH, M. D., *New York City*: "For Senile Eczema, especially with Pruritus, RESINOL is the best application I have found in twenty-five years' practice."

From W. J. BRYANT, M. D., *Brooklyn N. Y.*: "Surely in your preparation, RESINOL, you have a most wonderful antipruritic remedy. I have used it upon myself and my relief has been complete and absolute."

From E. S. HOYT, M. D., *Specialist, Rectal Diseases, New York City*: "RESINOL is one of the best local anti-phlogistic remedies, I have ever used. It subdues the intense inflammation in Strangulated Hemorrhoids in a very short time."

From H. S. DWIGHT, M. D., *Philadelphia, Pa.*: "In the various skin affections arising from high temperature in mills where operatives are exposed. I have found RESINOL admirable. I have also used it with good results in Chafing, Scrotal Eczema, and Vulvitis."

From ISAAC P. ALGER, M. D., *Coldwater, Mich.*: "I consider RESINOL a grand thing for cutaneous congestion and inflammation."

From W. S. ROFE, A. M., M. D., *Anita, Iowa*: "As an ideal sedative RESINOL has no equal, and in all eruptions of the skin I shall always use it in preference to anything else."

From ADVIL McLEAN, M. D., *McCall, S. C.*: "It is decidedly the best anti-pruritic remedy I have ever used."

From W. A. JEMISON, M. D., *Eminence, Ky.*: "RESINOL is the best local application for Eczema I have ever used."

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Tonsillotomy by Cautery Dissection.

Dr. J. H. Coulter read a paper on tonsillotomy by cautery dissection at the recent meeting of the Mississippi Valley Medical Association.

No subject in surgery or medicine has been much more prolific in interest and discussion than that of the tonsil. In the past ten years over 600 papers have been written on that subject alone. The size of the normal tonsil is still a subject of discussion with throat specialists. Some claim there is normally no tonsil to be seen; however, the most usual opinion is that there exists normally a collection of follicles between the pillars of the fauces protruding slightly above them. The tonsil is an almond shaped gland larger at one end than the other and somewhat flattened.

The methods usually employed for its ablation are the guillotine, igni puncture, the cold or cautery snare, or the

knife. Each of these methods have practical objections to their use. Most important of these objections and one which applies to all of them is the fact that by no one of them can the gland be taken out. Unless this is done the part remaining will oftentimes produce as much trouble as did the former condition. The operation I propose obviates this objection entirely if properly performed.

With a well-heated small electrode the pillars are dissected away from the tonsil to one-half its extent. The gland is then, with suitable forceps, drawn well out and thoroughly, and entirely dissected out to about one-half its extent. This portion is then cut off and the surface treated with a strong solution of silver nitrate. In a week or ten days the other portion of the tonsil is removed in the same manner. This operation will give cosmetic as well as practical results unobtainable by any other process yet suggested.

Tetany in Children.

Hauser (British Medical Journal) has investigated a number of cases of tetany, spasm of the glottis, and other diseases accompanied by spasm. In six cases of tetany with spasm of the extremities, the disease exactly resembled that of the adult. Spasm of the glottis occurred in all the cases, but was not necessarily severe or frequent. Fits were only completely absent. As regards Erb's symptom, the author agrees that the increased galvanic irritability is the most constant and important symptom of tetany. Trousseau's phenomenon was not absent in any case. It persisted longer than the spontaneous spasm. This sign may be absent, but when present it is pathognomonic. Chvostek's symptom was marked in all cases except one, where it was seen only in slight degree. The author says that this symptom is not pathognomonic, and may be present in other children, but in its most pronounced form it is only present in tetany. Muscular irritability was increased in all but one case. The knee-jerks were mostly exaggerated. Most of the children were excitable, but the intelligence was unimpaired except in one case, where there was a slight degree of idiocy. A rise of temperature was only once noted. In only one case of genuine tetany was the child well nourished. Rickets was generally present. There appeared to be a connection between the appearance of gastro-intestinal symptoms and that of the tetany. Hence the resemblance between infantile tetany and the tetany in gastric dilatation of the adult. The author accepts the view that there may be tetany without spasm of the extremities. In such cases Erb's and Trousseau's phenomena are present. Such cases he puts down as latent tetany. Spasm of the glottis has nothing to do with tetany. As far as our present knowledge goes, treatment can only be radical where more or less marked digestive symptoms are present. A rapid emptying of the alimentary canal is here indicated.

Abdominal and Gynecological Surgery.

An article on nine months of Abdominal and Gynecological Surgery, by Edward J. Ill, M. D., is published in the American Journal of Obstetrics and Dis-

eases of Women and Children, Vol. XXXIV, No. 4, 1896.

He reports operations on two hundred and seventy-eight patients. Upon this number three hundred and eighty-six operations were done. One hundred and twenty seven implicating the peritoneal cavity. Eighty-nine patients were operated upon in private houses with exceedingly satisfactory results.

There are five deaths reported, all of which were septic at the time of operation, excepting an occasional stitch hole abscess there was morbidity.

The writer insists that the indications for any operation must be strictly laid down. He does not operate for fibromyomata that produces no symptoms. He also opposes operation on acute inflammatory troubles in the pelvis where there is a chance for cure by other means. He is very much opposed to vaginal fixation on account of the uncertainty, and recommends ventro-fixation, of which he has done thirty-two operations.

His operations for fibroid tumors either consists of the vaginal operation or the supra-vaginal with dropping the stump or in cases of sloughing tumor of the extra-peritoneal method. He takes special precaution not to cut off the tumor in the last case until the abdomen has been firmly closed.

He reports three successful cases.

His operations for pus in the pelvis, by the vaginal route, have been successful, but the abdominal route has been given the preference.

His report on ectopic pregnancies have been very satisfactory.

He speaks very highly of Emmett's operation for laceration of the cervix and recommends for perineorrhaphy that cicatricial tissue only be removed.

He reserves for himself a minute description for another occasion.

He highly recommends Taits operation for laceration extending into the rectum. He has operated ten times during the past nine months.

The Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc., Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See page 573).

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ANTILITHIC—A Solvent of Uric Acid.

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Eliminative, Stimulant of Trophic Centers, Nutritive, Oxytocic, Apyretic, A Physiological Specific in all Cachectic disorders.

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Half a teaspoonful in water three times a day, either before, after, or between meals.

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representing as it does the full therapeutic power of inorganic therapy as known in the organism will be fully met by MELACHOL.

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PHYSICIANS will be furnished full size bottle of each free on payment of express charges.

Please name journal in which this appears.

ALTA PHARMACAL COMPANY,
ST. LOUIS, MO.

The Presence of an Oidium in the Tissues of a Case of Pseudo-Lupus Vulgaris.

Gilchrist and Stokes report the results of a careful study of the pathology of an interesting case of cutaneous disease. (Boston Medical and Surgical Journal.)

The patient was an adult male, who presented on the face a condition which had many resemblances to cutaneous tuberculosis, while on the skin of one hand and of the scrotum there were the scars left by the healing of a process which the patient said had been the same as that on the face.

The disease had begun years previously as a "pimple," and had spread slowly. A microscopical examination of pieces of skin existed from the lesions "showed an hypertrophy of the epidermis throughout which numerous variously-sized, well-defined milary abscesses were scattered." The epidermis was generally infiltrated with polynuclear leucocytes, while in the corium masses of granular cells and a few milary abscesses were present.

In addition to this there were found, in the milary abscesses and also among the granulation cells of the corium, numerous round and ovoid, refractive bodies, with double contour and 10 to 20 micromillimetres in diameter. These oval bodies were also cultivated from the pus of the lesions upon the ordinary culture media. Their growth was best obtained on glycerine agar and on potato. On the culture media they grew slowly and formed grayish-white colonies, which eventually become confluent and formed a thick layer, firmly adherent to the surface of the medium. The multiplication of the organism in culture, was found, in general, to take place by the outgrowth of branching thread-like processes, with knob-like projections along their course. The latter develop into more or less independent oval bodies, very like those found in the tissues.

By the inoculation of various animals with the cultures, lesions similar in character to those found in the patient were produced, and the same organism was found in them as well as cultivated from them. The authors regard the parasite as an odium, belonging to the class of the true fungi.

Rapidly Fatal Cerebritis Resembling Cerebro-Spinal Meningitis.

Drs. Hendric and Lloyd presented a paper on this subject at the Obstetrical Society of Boston. They called attention to the fact that fulminating cases of the infectious diseases such as small-pox, scarlatina, measles, typhoid fever and spotted fever occur in which the diagnosis is exceedingly obscure and the disease is usually quickly fatal. These cases as a rule have their most marked symptoms in the nervous system. There is delirium passing into coma with depressed cardiac and respiratory centres, with high fever, and in the cases of the exanthema often a purpuric or hemorrhagic eruption not always characteristic. These cases demand especially two things, first, the determination of the exact effects upon the nervous system, and second, the determination of the microbe or toxic agent at work in any given case. The writers could only attempt the former study as the paper was not intended to deal with the bacteriology of the subject.

They relate the case of a patient a man, aged twenty-four years, who was taken suddenly with a chill followed by fever and intense cephalalgia and radialgia. The patient passed rapidly into a condition of delirium merging into coma. Third nerve paralysis supervened, and on the third day a copious purpuric eruption appeared. This eruption presented ecchymosis and on the hands lesions like erythema nodosum. Blood and pus were found in the urine and vomiting of blood occurred before death. The patient died on the sixth day. The autopsy revealed disseminated local lesions in the cerebrum, mid brain, pons and post oblongata. Some migrated leucocytes in the perivascular spaces, little involvement of the membrane and a diffused nephritis. From extensive microscopic research the writers were able to report a disseminated local cerebritis. The infection had invaded the brain by way of the connective-tissue structures, blood-vessels, etc., and the nerve tissues proper were invaded secondarily. From the clinical standpoint the case probably comes under the head of "spotted fever."



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CURES DISEASES CAUSED BY GERMS:

DIPHtheria, SORE THROAT, CATARRH, HAY FEVER, LA GRIPPE, — OPEN SORES: ABSCESSSES, CARBUNCLES, ULCERS, — INFECTIOUS DISEASES OF THE GENITO-URINARY ORGANS, — INFLAMMATORY AND CONTAGIOUS DISEASES OF THE ALIMENTARY TRACT: TYPHOID FEVER, TYPHUS, CHOLERA, YELLOW FEVER, — WOMEN'S WEAKNESSES: WHITES, LEUCORRHOEA, — SKIN DISEASES: ECZEMA, ACNE, ETC.

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This harmless remedy prevents fermentation of food in the stomach and it cures:

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Send for free 152-page book giving full information with endorsements of leading physicians. Physicians remitting express charges will receive free samples.

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Hydrozone is put up only in small, medium and large size bottles, bearing a red label, white letters, gold and blue border, with signature.

Charles Marchand's Peroxide of Hydrogen (medicinal) is put up only in 4-oz., 8-oz., and 16-oz. bottles, bearing a blue label, white letters, red and gold border, with signature.

Glycozone is sold only in 4-oz., 8-oz., and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border, with signature.

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Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

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SOLD BY LEADING DRUGGISTS.

Are Microbes Necessary to Human Life?

A writer in the Philadelphia Polyclinic is of the opinion that so far as the animal body is concerned, the interesting experiments of Nuttall and Thierfelder indicate its independence of bacterial life, for they have shown that in the absence of all micro-organisms an animal may live and thrive.

"Their experiments were as follows: A young guinea pig was secured by Cæsarion section, under strict aseptic and antiseptic precautions, and immediately transferred to an apparatus consisting of a bell-jar placed over a small vessel containing water covered with a layer of oil. Over this vessel was laid a piece of wire netting, upon which the animal could move about. In the sides of the bell-jar were two apertures—in one a rubber glove, in the other a suction tube communicating with a bottle of sterilized cow's milk. The glove was connected with a rubber bag containing wads of cotton, which by manipulation of the glove could be placed on the wire screen, and after use could be dropped into the water beneath. The coating of oil prevented the evaporation

of the water. From time to time the apparatus was ventilated with sterilized air.

"For a time the animal lay on its side, but soon rose on its legs, and as it became dry, grew active and lively. It received milk for the first time twelve hours after birth; therefore, every hour, day and night. After eight days it was removed from the apparatus, killed, and opened under antiseptic precautions. A microscopic examination of the intestinal contents, in stained and unstained preparations, revealed a total absence of bacteria. Tubes inoculated with the contents and kept under both aërobic and anaërobic conditions remained perfectly sterile; not a single colony developed.

"From these results the experimenters conclude that the presence of bacteria in the intestinal canal is not necessary for guinea-pigs, nor for other animals or for man, at least not as long as the food is purely animal."

C. M. Slack, M. D., New Brunswick, N. J., writes: I have been using Hagee's Cord. C. L. Oil Comp. in my own immediate family with excellent results. It is a most palatable reconstructive and nutritive tonic.

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Diphtheria and Its Treatment.

By W. M. CATTO. Decatur, Ill.

Diphtheria is the most fatal of all the contagious diseases of childhood. It has been recognized nearly as far back as the history of Medicine extends, having been described by Aretæus of Cappadocia, Galen, Cælius Aurelianus and others. Subsequent to 580 it has prevailed as an epidemic at some time or other in nearly every civilized country on earth. It made its first appearance in New England about 1659.

Much difference of opinion has existed regarding the etiology of the disease, its mode of invasion, as to whether the malady be local or constitutional, and most important of all, the best method of treatment.

It is now generally conceded that the disease is of bacterial origin, the Klebs-Löffler bacillus being present in nearly all cases, although unfortunately it is also found in some forms of throat trouble wholly devoid of all other clinical symptoms of diphtheria.

Primarily, diphtheria is a local lesion producing constitutional disturbances of the gravest kind, exactly in the same manner as a case of general sepsis may arise from a poisoned wound in the hand or foot. We would hardly discuss for thirteen centuries the question whether the swollen oedematous appearance of the poisoned wound were a local manifestation of the constitutional condition, without arriving at a definite conclusion.

Certain also is it that membranous croup and diphtheria of the bacillus is not always present in croup; if so, we will have to dispense with this one distinguishing feature, and remark that it is often present where we would have less expectation of finding it.

In this connection it is well to remember that the mouth, fauces, pharynx and that part of the larynx above the vocal chords is lined with squamous epithelium, while that part of the larynx below the

vocal chords, the trachea, and bronchi are lined with columnar epithelium; and that the diphtheritic deposit takes place into the mucous membrane in the former situations, while in the latter it is deposited on the mucous membrane.

Clinically, we are certain that in the majority of instances the laryngeal trouble is preceded by a well marked case of faucial diphtheria, and that the former is simply due to an extension of the diphtheritic membrane downwards, although it is a fact that the membrane may begin to form in the larynx or trachea without any previous manifestation of trouble in the throat. So also does the membrane not infrequently clear, to be invaded twenty-four or thirty-six hours later. Such a case came under my observation in October of this year. A child of eight years was brought to me by the mother, who said that for two days the little one had seemed unable to breathe through the nose. Upon examination, I found the nostrils filled with diphtheritic membrane, and discharging a sero-sanguinous fluid having the characteristic odor. Twenty-four hours later, the pharynx and tonsils were also covered, and the child had a severe diphtheritic attack lasting five days.

Illustrative of the disease beginning in the larynx and extending upwards: I was called in September of this year to see the youngest of three children, who without any previous noticeable illness began to cough "croupy," with harsh respiration. The pharynx and tonsils were clean, but red and swollen. Twenty-four hours later the lower part of the pharynx showed a distinct membranous deposit; ten days later the other two children had faucial diphtheria, presumably contracted from the youngest.

Regarding the immunity afforded by an attack of diphtheria, it seems to me that like many fallacies accepted without investigation, one has been handed down here for generations. We find it stated even in the most recent text books, that so far from one attack affording immun-

ity from another, an individual is rendered more prone to a second, or rather to repeated attacks of diphtheria.

This assertion is not borne out by actual fact. Most accurate observers, who have had extended experience in the treatment of this disease, will testify that in no other malady is immunity from recurrence more certain. This is as truly the case in this as in any of the infectious diseases.

We have an occasional recurrence of measles or scarlatina in the same individual, but it is generally conceded that these cases are exceptional. I have never seen diphtheria the second time in the same individual, and would as soon expect to see a small-pox patient have repeated attacks of variola; and unhesitatingly assert that in every so-called case of recurring diphtheria, the diagnostician is at fault, either at first or subsequently.

Many patients having had diphtheria are from the hypertrophied, ragged condition of the tonsils left in consequence, predisposed to repeated attacks of tonsilitis upon exposure to causes producing that trouble. Of children who recovered from diphtheria in 1892 I have succeeded in tracing seventy-eight cases who have since been exposed to the influence of the contagion repeatedly, the disease having existed in the same neighborhood since, and in some instances even in the same families; and although I have treated some of these children for minor attacks of sore throat, not one of them has had diphtheria.

Very questionable also, is the co-existence of diphtheria with scarlet fever so frequently mentioned, either as a complication or sequel. The severe gangrenous angina of scarlatina, resembles closely the septic form of diphtheria, and is probably often mistaken for the latter.

The paralysis of the muscles of deglutition and vocal chords following such cases, are mechanical and due to structural change rather than a characteristic paralysis of diphtheria.

Concerning the treatment of this disease, it must be acknowledged that little permanent advance has been made until within a comparatively recent period. During all epidemics of which we have any authentic record, authors agree in

placing the mortality not lower than from forty-seven to fifty-three per cent. while in some instances it has risen higher; notably in 1862 in a certain section of Vermont, the mortality reached ninety per cent.

The multiplicity of remedies recommended and used in the treatment of this malady best emphasizes their inefficacy.

In an article which I read some time since, the author mentions thirty-four distinct remedies; enough certainly to account for the high rate of mortality. The two chief causes of death in diphtheria are sepsis and suffocation; and any plan of treatment adopted should have for its end prevention of one or both of these conditions.

Omitting prophylaxis and passing direct to the treatment of this malady, we must consider—first; the type of disease, whether septic or otherwise. Second: its location, whether laryngeal or not. Treatment must be both local and constitutional. The constitutional treatment should be highly supportive from the very beginning. Many cases are so mild that they would recover spontaneously in a few days without any treatment whatever and in these such a course will do no harm, while in cases of a severe type the utility of such measures has been demonstrated so often, and failure in this direction has proven so disastrous in results, as to need no argument in its favor. These supportive measures embrace an abundance of easily digestible nourishment in all cases, and the free use of stimulants when the disease is of a severe character, and especially when of a septic or gangrenous type. In such instances their use is not to be limited to a certain quantity, but only by the effect produced.

Aside from the above, with the possible exception of iron in the septic type, and mercurials in the laryngeal variety, it is a matter of very grave doubt whether any one of the legion of remedies administered by the mouth, has ever shortened a case of diphtheria one hour, or lessened its severity in any way; on the contrary it is highly probable that chlorate of potash, carbolic acid, antimony, ipecac, pilo-carpine and a few others have slain many little patients that Nature, left to herself, might have spared.

Local applications to be of benefit,

should be used frequently, so as to keep up as nearly as possible their continuous action, and should be carefully chosen; many heretofore in common use are to be condemned. Burning sulphur in the room is likely to so irritate the throat of the patient, as to not only cause great discomfort, but hasten the further invasion of adjacent tissues. Bromine, iodine, carbolic acid and remedies of this class, cannot with safety be used sufficiently strong to do good in diphtheria of young children. Chloride of iron has both a constitutional and local effect. Constitutionally it stimulates the nervous system, increases the arterial pressure, and retards the destruction of red blood corpuscles, so prominent a feature in severe forms of this malady. Locally it is antiseptic, and prevents absorption by the lymphatics, and by its astringency it reduces hyperæmia and swelling. It should be used at least hourly when used at all, in doses of five to ten drops properly diluted.

Calomel in one-twentieth to one-tenth grain doses given hourly, stimulates renal and biliary secretions, is a direct germicide, and by its constitutional action, produces maceration and loosening of the laryngeal and bronchial diphtheritic membrane.

The introduction and use of peroxide of hydrogen marks a distinct advance in the treatment of this disease. No other local application shows such good results, and at the same time has such slight power for injury. It should be used in strength from thirty to fifty per cent. diluted with lime water, or ordinary distilled water, applied with an atomizer every half hour. It has a solvent effect on the deposit and more particularly that portion of it in the fauces and pharynx. This is probably due to the fact that in this situation the mucous membrane being lined with squamous epithelium, is infiltrated; pyrogenic microbes are in abundance both on the surface and in the upper layers of the membrane; these the peroxide has the power of destroying, and while such action is in progress, the deposit is macerated and loosened in shreds.

In the laryngeal form steam is beneficial in most cases; not as is frequently stated because it promotes suppuration, but my moistening the inhaled atmos-

phere renders it less irritating, lessening the oedema of the larynx and loosening the membrane. It may be administered plain or medicated with lime or turpentine. A simple method of administration is by means of a small tea-kettle suspended over an alcohol lamp; to the spout of the kettle may be attached a rubber hose of tube of sufficient length to conduct the steam beneath sheets, suspended over the patient's bed in such a manner as to form a tent; by this means the inspired atmosphere may be kept constantly moistened.

When we consider the experience of the medical profession with Bergeon's gas bag, Koch's tuberculin, Brown Sequard's elixir of life and so on ad infinitum, it is a little wonder that the introduction of diphtheria anti-toxin was received with distrust in most quarters, and met with open, long continued bitter opposition from others. Nevertheless it has come to stay: it has passed the experimental stage, and thought not by any means a specific for diphtheria, it more nearly approaches it than any thing else we have, and I am convinced places this dread disease within control and is destined to save thousand of lives that would otherwise be lost.

It is as much a specific for diphtheria as quinine in malaria, mercury in syphilis, salicylic acid in acute articular rheumatism; they all fail in individual cases, but are successful in the majority of instances.

Where anti-toxin fails, the cause can in most instances be attributed to delay in its administration, or to insufficient dosage. To get the best results, all physicians who use it agree that it should be used early, within the first or second day, if possible.

The chief opposition to its use, at first came from men who had never used it. Realizing the futility of such opposition in the face of daily favorable reports, some of these began to employ it, apparently, determined however to find no good in it.

Many of the arguments advanced against it are untenable, and such as were used against the introduction of vaccine, chloroform, the hybodermic needle, etc. It has been claimed that it will not cure septic cases, that it will not cure laryngeal cases, that it causes blood poison-

ing, that cases of sudden death were reported following its use.

Few cases are distinctly septic before the second or third day; and right here is where the remedy is a boon; if administered the first day, or even the second day, many of these cases would not assume the gangrenous form. So also in laryngeal cases, the majority of which supervene after the membrane has been present in the upper part of the throat some days; but even in those cases where the disease begins primarily in the larynx, it has very great controlling power and should be used in large doses.

In this class of cases, I have used two thousand immunizing units in a child of three years, with the happiest results. Here also it is a great aid to successful intubation.

About three weeks ago I was called in consultation with a physician, who twelve hours previously, had given one thousand units to a child of twenty-one months; the remedy had not yet had time to act, and the little one was in imminent danger of suffocation; the countenance was livid, the lips purple, the child was bathed in cold perspiration, abdominal respiration, gasping, partially unconscious of its surroundings, and dissolution seemed impending. We determined upon intubation, which was done. Twelve hours later another injection of anti-toxin was given. The child wore the tube but two days longer and coughed it out, the throat remaining clean, and the little one made an excellent recovery.

Of five other laryngeal cases recently under my notice, by the early administration of large doses of anti-toxin all recovered without operative interference. Of these, one is particularly worthy of note. A boy seven years old had been ill two days: two thousand units of anti-toxin was administered and within twenty-four hours he coughed out a complete cast of the trachea four and one-half inches in length.

The cases of blood poisoning reported from the use of this remedy must be attributed to a lack of aseptic precaution on the part of the operator in using a contaminated needle, in not rendering the point of injection clean, or possibly to an unreliable preparation of serum.

Much stress has been laid upon the few cases of sudden death reported after

the administration of anti-toxin. Most of these are susceptible of explanation on other grounds. Paralell cases were reported as arguments against the use of the hypodermic needle at one time, and probably with equal justice. We have also had reported untoward results following vaccination.

Granting even that one or two deaths have occurred that are difficult of explanation, would this be sufficient cause for the abandonment of chloroform, vaccine, or anti-toxin.

The case of Prof. Langerhans' child, has perhaps been given more prominence than any other in this connection; yet it was subsequently shown as a result of a most careful autopsy by Dr. Strassman that the child died from strangulation caused by inspiration of vomited matter into the trachea while struggling during the administration of the serum.

Lennox Browne in the British Medical Journal, December 1894 reports two cases to have died from Anuria, thirty-five to forty-five hours after injection. We have all seen many cases die from Anuria when no anti-toxin was used,—indeed this is a common termination in many septic cases. So also in cases reported by Vierordt, Engel-Bey, Rosenthal, Pistos, Solliman, Hagenbach, Guinon, Johannes-san. The fatality can in most instances be traced to perfectly natural causes. In some of them as much as ten days elapsed between the injection of the serum and death, and in others there is strong presumptive evidence that the patients were suffering from scarlet fever instead of diphtheria.

Another argument advanced in opposition to the serum is that it has not actually lessened the death rate, the reason given for the apparent lessening, being that more cases are now reported than formerly, and that either many cases are now claimed to be diphtheria that would formerly not have been classed as such, or that the actual number of cases occurring must be much greater during 1895 and 1896 than in former years. Both of these later statements are probably true, certainly the last one.

Diphtheria has prevailed over a wider range of territory during the past year and especially during the last four months than ever before in the history of this country, but the fact remains that the

mortality per cent in private practice is much lessened, as shown by the report of the Pediatric Society in June 1896 (See Archives of Pediatrics.)

A writer in the Journal of the American Medical Association, May 1896, in an ingenuous article, while admitting that the mortality is lessened where the serum treatment is used, claims that the result is not due to the beneficial effects of anti-toxin, but to the elimination of a harmful drug treatment so much in vogue previously. If, for the sake of argument, this be conceded, the remedy is still deserving of praise in having accomplished much good.

Personally during the past eighteen months, I have used anti-toxin in one hundred and three cases with six deaths, every one of which occurred within twenty-four hours after the administration of the remedy. In not a single instance was a patient lost when it was used within the first forty-eight hours.

Of the fatal cases, three were laryngeal, and three were septic, and all seen late in the disease, two after the fifth day two in the fourth, and one in the third.

Should other treatment be abolished when the serum is used?

By no means. Anti-toxin, as previously stated is not a specific, but a very useful adjunct in the treatment of this malady.

What then constitutes the most approved mode of treatment?

First: Inject anti-toxin in every case as soon as the diagnosis of diphtheria is made; use sufficient dosage; not less than one thousand to two thousand immunizing units, and repeat it in twelve to twenty-four hours, if improvement is not apparent.

Second: Use as a spray a thirty to fifty per cent solution of peroxide of hydrogen every half hour during the day, and every hour at night.

Third: Use steam, preferably impregnated with lime or turpentine in the laryngeal form, so managed that the patient breathes an atmosphere saturated with it. Use chloride of iron in septic cases.

Fourth: Give small doses of calomel one-twentieth to one-tenth grain repeated every two, three or four hours, according to the effect produced on the kidneys and bowels.

Fifth: Use abundant nourishment and free stimulation in all cases.

Sixth: When danger of suffocation is eminent, practice intubation unhesitatingly, and resort to tracheotomy if intubation fails.

Clinical Reports.*

By E. W. SAUNDERS, M. D., St. Louis.,
Professor Paediatrics Missouri Medical College;
Senior Physician to Bethesda Foundling
Asylum, Episcopal Orphans' Home, etc

I was called sometime ago to perform intubation in a child of fourteen months; the symptoms of croup had set in on the previous Saturday. Dr. Furney, who was in charge of the case, was not called in until Monday, and found the child suffering from considerable stenosis of the larynx; but the symptoms were ameliorated by Tuesday, and continued so until Wednesday morning. On Wednesday evening he found the child in great distress, and telephoned immediately for me. I found the patient with a high degree of stenosis of the larynx; the recession of the xyphoid cartilage was extreme; vesicular murmur was gone; the temperature was subnormal. On inspection the throat appeared normal; no membrane and no redness whatsoever; the epiglottis could be plainly seen. The tube entered readily, and after the expulsion of mucous relief was complete. The reaction to the presence of the tube was very marked, showing no membrane in the trachea. The guiding finger felt no infiltration or membrane. Although we considered the case non-diphtheritic, 1000 units Mulford's antitoxin, No. 8, were injected, out of abundant caution. The case did well until the next evening when the tube was expelled during a violent paroxysm of coughing.

The experienced nurse who had charge of the case, said that the child became immediately cyanotic, and was in imminent danger of dying before help could be obtained. Within fifteen minutes I arrived at the house and found the child apparently in extremis. On attempting to re-introduce the tube, I found the glottis closed as tightly as a man's fist,

*Read before the Bethesda Paediatric Society November 10th, 1896.

and all efforts to obtain an entrance were in vain; swelling there was none, the arytenoid cartilages stood out boldly, the epiglottis could be easily raised. Several attempts were made, and then resort was had to tracheotomy.

A remarkable feature of the case was that the larynx was drawn down to the utmost limit, and not for a moment did the spasm of the depressor muscles relax. With the thumb I attempted to raise the larynx by external pressure, but failed. Before the trachea was opened the child was apparently dead, the veins were almost empty, and respiration had ceased. Artificial respiration finally availed to bring the child to life. The appearance of the inner surface of the trachea was almost normal, membrane there was none either at this time or subsequently. The child reacted well and made a good recovery, the tube being removed on the tenth day.

Laryngoscopic examination two or three days after the tracheotomy showed no swelling whatever above the cords, but considerable redness of the glottis. The temperature ten hours after the operation reached a maximum of 103.5° . By the next day it declined to 102° , and hovered about this mark for four days, on the 5th day sank to 100.5° , and reached normal on the 11th day. The lungs remained perfectly free, so that the temperature could be ascribed wholly to wound fever.

This remarkable case illustrates several points; one is that at no time are we justified in saying that a case of croup is without danger because of the absence of membrane. It also teaches us the importance of intubation in the presence of this fearful unrelenting spasm of the glottis, of which Hugue alone amongst authors speaks, so far as I am aware. The suggestion to overcome this spasm by chloroform is not practicable, for the simple reason that the spasm prevents the access of chloroform to the lung in sufficient quantities to secure the desired effect. In practice Hugue has found it useless.

Another important lesson is that we are never justified in assuring the mother, as I did in this case, that after the accidental expulsion of the tube, the breathing would be better than before. The practical deduction is that no case of in-

tubation should be left for a moment without skilled assistance at hand, if we would secure absolute safety.

The physician who practices intubation should carry with him the instruments necessary to perform tracheotomy. The two operations are not rivals, but supplementary one to the other; and as the emergency arises so quickly in most cases, no one should attempt to deal with croup, who is not competent and ready to perform either operation at any time.

I was called by Dr. Hypes, in the middle of the night, to perform intubation in the case of a child of six years, suffering from a very marked attack of diphtheria, faucial and laryngeal; the dyspnoea had become extreme, although from the short duration we did not suppose that it had invaded the trachea. The tube was introduced without difficulty and very quickly, but I noticed that the introduction of the gag caused great additional distress in breathing, and that the mucous membranes were very dusky, and felt cold when I introduced the guiding finger. No effort at respiration was made after the tube was introduced; the child seemed dead. The tube was immediately withdrawn and preparations made for tracheotomy; in the meanwhile Dr. Hypes had restored the child by artificial respiration, and to our astonishment the lips became red, showing that the tube had been of great benefit as a dilator. Encouraged by this, with all the instruments ready for instant tracheotomy, I re-introduced O'Dwyer's tube with perfect success, the breathing becoming easy at once. Dr. Hypes had already injected antitoxin, presumably 1000 units, S. and L. Health department.

A tendency to syncope was noticeable for half an hour or more, necessitating the lowering of the head. At the end of that time the heart's action became strong and regular. However, there was still a shorter percussion noted over the right lung posteriorly. The child did well until the next afternoon, when the temperature suddenly rose to 103.5° , and it became evident that broncho-pneumonia had set in. Death occurred 36 hours after the injection of the antitoxin.

This case strongly illustrates the point which I made in an article published in the Medical Fortnightly recently, that intubation is a very dangerous operation

in extreme cases of croup, and never should be undertaken by a novice, unless there be ample time for making a number of attempts. While intubation may be regarded as a harmless operation ordinarily in a case of croup, it is an exceedingly dangerous one in these not infrequent cases, where a physician is called to operate upon a patient in extremis, with not a moment of time to spare. The introduction of the gag, and the thrusting of the finger into the throat are almost sufficient to complete the asphyxia of the child.

Mrs. C. P. was taken ill with a violent sore throat Tuesday evening. On Wednesday I was called and found a unilateral lacunar tonsillitis apparently, with an unusually dark red appearance of the mucous membrane of the right side of fauces, and great swelling of the lymphatics. Deglutition was so painful that all nourishment was refused. I prescribed one-sixth grain of pilocarpin with twenty grains of sod. benzoatis. The first dose produced such profuse and long continued salivation that she declined to take another until my next visit, 24 hours later. To my astonishment I found the whole of the right tonsil and the arches covered with a dense one-eighth inch thick membrane, pearly white. Twenty-five hundred units of Mulford's antitoxin were injected, and a culture made for microscopical examination by Dr. H. N. Chapman. In using the swab the whole membrane fell off, showing a very loose attachment to the subjacent membranes. Peroxide spray had been used frequently. The membrane was reproduced within the next 24 hours; by which time the antitoxin prevented further development, and caused the subsidence of the swollen glands.

In a former article I strongly urged the use of pilocarpin as an adjuvant to the antitoxin treatment during the first day or two, and to its systematic use I feel that our uniform success with antitoxin has been due. It relieves the system of the profound toxæmia until the antitoxin can come to the rescue; macerates the false membranes already thrown out, and retards their putrefaction, while it protects the membranes which are being invaded, from the deep and destructive work of the bacilli. If a diphtheritic patient is kept salivated by pilocarpin for 24 hours after

the injection of the antitoxin, in full doses of a reliable preparation, such as Mulford's No. 8, there will be no further development of false membrane. The membrane which has formed will be rapidly thrown off, leaving an almost unbroken surface behind; the toxæmia is abolished, laryngeal involvement becomes impossible, and the principal danger which we have to face, is post-diphtheritic paralysis, which should be guarded against by full doses of strychnia throughout the whole of convalescence, together with iron tonics.

There is absolutely no ground for believing that antitoxin has increased the number and severity of post-diphtheritic paralysis. If used at the very beginning of the disease, it will prevent them; used later it does not prevent, but saves many patients who otherwise would not have lived to manifest the paralytic symptoms.

Antitoxin alone does not diminish the mortality in cases of *mixed infection*, and it is in just these cases that the combined use of pilocarpin and antitoxin is imperatively demanded.

Some Notions Concerning the Management of Natural Labor.

By O. W. SHERWIN. Woodstock, Vt.

Go about the work with clean hands. It is not necessary to be foppish or pedantic about this but be sure your own hands are clean before undertaking to care for a woman in labor. Next be satisfied that the patient is also clean. Unless there is a history of purulent leucorrhœa or irritating discharges it will not be necessary to use vaginal douches, as a routine, and their use is not wholly without danger of infection, but the pudenda should be carefully washed and the patient instructed not to handle herself afterwards. When a woman has borne children without the precautions of the present day she sometimes objects to the "fussiness" we carry with us, but if told that her own safety is not all we are looking for, and that much of our precaution is for the safety and well being of the child. She will seldom object. If the vagina must be washed do it yourself unless you know the nurse. Do not trust such things to nurses unless you know them well. I admit that many nurses do this sort of work better than

some doctors but the doctor ought to know just what he wishes to accomplish and should do it himself. It is not necessary to keep the hands of the doctor or nurse steeped in strong disinfecting solutions in natural labor as it might be in cases of operations such as laparotomy for there is not the same danger of infection in the normal uterus and vagina that there is in the normal peritoneum. The hands and clothing however, should be clean, and just as few vaginal examinations made as will enable the operator to keep a knowledge of the progress of the case. There can be no serious objection to the wearing of the obstetrical gown although as a general thing it is not necessary. It is certainly convenient for the operator to protect his clothing and if properly sterilized after each case and kept carefully protected from dust, disease germs, &c., it can do the patient no harm, unless the patient is accustomed to seeing the gown in similar cases it is best to explain its use, and convenience to her, as I have heard women say that whereas in previous cases they had looked upon the doctor as a friend and helper, in the new dress they could see only the executioner.

People are every year becoming more accustomed to modern methods and the time will soon come when they will demand and expect what may now seem unnecessary procedures. Be careful about setting the time when the child will be born, but if you must guess before the child's head bears well on the perineum during each pain, use your best judgment and then double the time. Nine times out of ten this will be the most satisfactory guessing. Use care and judgment in the third stage of labor even if the expulsion of the placenta is perfectly natural. Do not hurry. Do not make traction on the cord unless driven to it. Allow the placenta to fold on itself naturally and if traction is necessary make it with the finger passed through the presenting edge, which will usually bear several pounds if carefully applied. Do not make a routine practice of putting the hand into the uterus for the removal of the placenta, for it is seldom necessary and cannot always be done safely. If you give ergot before the expulsion of the placenta you will have to run the risk of its being imprisoned by the drug.

Do not forget the urine after child birth. It is not passed naturally within a few hours it should be drawn with a catheter. Use a silver instrument which has been recently well boiled. Use no ointments unless you know they are sterile. See that the dish into which the urine is drawn is clean. If an instrument which has been carried in a pocket case is used without sterilization and lubricated with rancid ointments, and the urine drawn into an old rusty tin dish thrown away in the wood shed, and the patient should have cystitis, following the use of the character, it is no worse than I have seen done, but is hardly the treatment we think the patient entitled to in the light of our present knowledge.

Years ago we expected an elevation of temperature about the third or fourth day and this was popularly called "milk fever." It was supposed that it was a necessary accompaniment of the coming of the milk, but we now know better. An elevation now calls for a vaginal douche which usually puts an end to the feverishness, but if the high temperature persists the uterine douche should be given. This should be done by the physician if possible. Washing out the uterus with a solution of boracic acid, using a proper instrument thoroughly sterilized, will be safe and will probably remove the cause of the high temperature. So whenever the temperature rises after child birth make no delay, but look to the vagina and uterus immediately. Doubtless many children are born of mothers who have purulent or infectious vaginitis, who never have eye troubles, but this condition should always be looked to when there is a history of persistent leucorrhœa with irritating discharges, and the vagina should be thoroughly treated before labor, and the face and eyelids of the child should be washed in some sterile solution immediately after birth, and if the child is born without the mother having received the douche, thoroughly wash the conjunctivæ with some disinfectant solution. In all cases where inflammation of the eyes occurs within a few days after birth regard it as a case of purulent conjunctivitis and act accordingly. Chloroform the child and thoroughly irrigate the conjunctivæ sacs with solutions of disinfecting strength. Do this daily for a few days and the chances

are that you will save the sight of the infant.

Feeble-Mindedness and Viciousness in Children an Inheritance.*

MARTIN W. BARR, M. D., Chief Physician,
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I have been asked to say some words to-day regarding heredity as a factor to be recognized in juvenile viciousness. Perhaps I may make it more clear if I state my belief in viciousness in children, and naturally in adults also,—the “child being father to the man”—a symptom of disease either congenital or accidental.

It would be well for parents to estimate more strongly than they do the far reaching effects upon the nervous system of an infant or a young child, of a single convulsion, a sudden fall, a slight pain. The delicate nerve centers shaken by a storm may give no sign for years—indeed until the school period is reached, when either the class-room or the gutter may reveal the lurking incurable ill, doubly to be dreaded if there be, and it is most frequent, a history of neurosis back of it.

“There are people who think that everything may be done, if the doer, be he educator of physician, be only called ‘in season.’ No doubt,—but ‘in season’ would often be a hundred or two years before the child was born; and people never send so early as that.”

“Each of us is only the footing up of a double column of figures that goes back to the first pair. Every unit tells,—and some of them are *plus*, and some *minus*.

If the columns don’t add up right, it is commonly because we can’t make out the figures.”

The robust child of good physique, unfailing appetite, generous high-spirited, cheerful—the kind that mothers’ claim “has never given an hour’s trouble since he was born” is the child we are apt to say “comes of good stock,” or, “perhaps he has good blood through and through, the defect of this or that parent did not touch him.”

Conversely we speak of the mean boy,

the puny sneak or liar at school, at “what else could you expect of such blood?” Thus unconsciously do we continually acknowledge our belief in the power of inheritance.

Again, we find the excitable, nervous, erratic child who expends its mental and physical strength in various excitements, the apathetic, the bovine, the morose, the sullen or one who is morbidly depressed with delusions of persecution.

In each of these children we may note and carelessly remark that he or she resembles the father or mother, frequently forgetting that this resemblance is not hap-hazard, but follows a regular and clearly defined law, the limit to which, the third and fourth generation is but a minimum.

I know personally of one family whose males through three generations have, when under the influence of violent temper, been accounted temporally insane, and doubtless each one of you might relate similar instances.

Medical records tell of a family of high rank on the Continent, whose males, through successive generations committed suicide at the age of forty.

Not only in vice, but in genius do we recognize this power of inheritance. Witness the Bach family where during two centuries, in eight generations, furnished an uninterrupted line of musicians, including some thirty of eminent rank.

A glance at comparative history but shows this repeated among articles, literatures, statesmen, etc. The Titians who produced a race of printers, Dumas *pere et fils*, the elder and younger Pitt being not solitary examples.

Individual characteristics repeated and grouped, make up racial—thus the culture of the Greeks, the genius of the Italians, the versatility of the French are but wider exemplifications of this same inherited power, of course aided and intensified by the same environment through successive generations. Nowhere is this so wonderfully evidenced as in uncivilized races, where we find it pure, unmodified by accident or distracting influences.

The Somali of Africa is a wonderful example. In every member of the race you find the same peculiar temper that takes rapid flight from extreme to extreme—horribly cruel one hour and

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childishly silly the next. They possess not the slightest filial affection, and gratitude is unknown; insensible to pain they do not fear death. So from father to son and on *ad infinitum* these vicious characteristics are transmitted. The law of heredity is an unalterable one and comes to us from most ancient times.

Now, as of old may the proverb be quoted: "The fathers' have eaten sour grapes and children's teeth are set on edge."

Ribot says, "Heredity is that biological law by which all beings endowed with life, tend to repeat themselves in their descendants; it is for the species, what personal identity is for the individual." But Moreau of Tours shows it an "incorrect conception of the law of heredity to look for a return of identical phenomena in each new generation. A family whose head dies insane or epileptic does not of necessity consist of lunatics or epileptics; but the children may be idiots, paralytics or scrofulous. What the father transmits to the children is not insanity, but a vicious constitution, which will manifest itself under various forms." Thus parents who have irritability of the nervous system, who are erratic, are excessively nervous or epileptic are apt to have peculiar children—be they imbeciles, moral imbeciles or abnormally bright.

Legrand du Sualle notices that in homes of correction are found "creatures who are whimsical, irritable, violent, with little intelligence, refractory, ungovernable and incorrigible. These are children sometimes of drunkards, epileptics or lunatics. Sometimes, and this is the most frequent case, the father is unknown, and the mother is scrofulous, hysterical, a prostitute or a lunatic."

We frequently observe viciousness appearing in different forms in one family, the parents irreproachable in every respect, with only the explanation that the evil may be traced to a common ancestor, one of whom vice, or blood, or meanness had made mad.

What could not have been foretold of the descendants of Filippo of Milan, who killed his wife by painting her lips with scarlet poison, or of Pietro Barbi, the Venetian, whose tiara was bought at the price of sin; of Ezzelin whose melancholy could only be cured by the spectacle of death, and who had a passion for scarlet

blood as other men have for red wine, and who cheated his own father, a fiend, at dice, when gambling for his own soul, or of Gian Maria Visconti who used hounds to chase living men, or the Borgia with Fratricide riding beside him? It is rare indeed when all the children of a family are affected by the transmitted taint, though I have with me under training two, and often three sent from one household.

Nature is ever ready to relieve and to heal—to profit by the infusion of pure blood to overcome evil for generations—until some unfortunate connection again calls it forth. This explains what may be thought a strange freak of nature, that parents apparently quite healthy may yet transmit a neurosis to their children.

An interesting example of this I have traced through seven generations springing from neurotic stock, branching into thirty-nine families, numbering eighty-four individuals. Intermarriage of a sound member with healthy stock shows issue of seven children untouched by taint. Of these children those forming clean connection maintain a healthy line until the taint weakens or disappears. Others unite with impure, with the inevitable result of the reappearance of nervous disease under some form or other—often impotence or early death of enfeebled offspring, showing again nature's beneficent effort to protect the race.

It may be of interest here to mention that the town of Tréguier in France, where the majority of people are neurotic and consanguineous marriages preponderate, most of the people are insane or semi-insane.

Of all diseases imbecility and vice are most surely propagated by heredity transmission, and you are doubtless familiar with the history of the disreputable "Jukes" family, aggregating over twelve hundred persons, including two hundred thieves and murderers, two hundred and eighty mental and physical defectives, ninety harlots, and three hundred dying prematurely—costing the State of New York in seventy-five years, over one million, two hundred and fifty thousand dollars?

Another known as the "Tribe of Ishmael" is traced from one neurotic man to over five thousand persons, costing the State of Iowa one hundred and seventy-five thousand dollars in one year, and

flooding the northwest with pauperism and crime. Nearer home, in our own State, is the Richards family, notorious alike for its paupers and its immorality.

As I have before spoken of the heredity of genius, I would call your attention to the association of these two—in evidence of each and both being the result of unstable or unbalanced nerve centres.

As far back as 1621 Tassoni remarks: "How it happens to wise fathers to have very foolish children, and to very foolish fathers to have very wise children."

Genius and viciousness go side by side, and a genius is not unfrequently found with degenerate children. Thus Commodus, the son of Marcus Aurelius, was a monster of cruelty; the son of Scipio Africanus was an imbecile, as was also the son of Thomas Campbell. William Penn's son was a debauched scoundrel. Cardan had a peculiar family history; his father was a neurotic, his mother, also a neurotic, attempting abortion before his birth, he pure, but his two sons were criminals.

In these examples you may see, not only the neurosis skipping a generation, but developing in different forms, and this will also perhaps make more clear what so many do not understand, and what the general public is so loath to accept, viz., that moral imbecility is not only incompatible with intellectual precocity, but is frequently naturally associated with it, as in the Medici, a name synonymous alike with statesmanship and with crime.

Criminology, now a universally acknowledged science, is fast proving the irresponsibility of the criminal—that he is an atavistic creature, who cannot be blamed for impulses born in him—that in a large majority, certainly of the grosser crimes, the impulse springs from inherited taint.

This once accepted must induce new ways of viewing and dealing with criminals from a medico legal stand point, and later it is to be hoped, of the prevention of crime through medico-pedagogic methods.

We find ourselves face to face with a moral problem to which there can be but one solution. With imbecility and crime undoubtedly on the increase, traceable—as we have seen in this rapid glance without even touching statistics—to well ascertained inherited taint, the present system of dealing with evil seems of no more

avail than many which passed away with the dark ages.

Science in its many branches is fast revealing the truth which the community will surely accept—that prevention must largely take the place of punishment, and punishment used only under medical direction as counter irritant to stimulate healthful reaction.

Reformatories for *this* class will in time be proven as unsuccessful as prisons. A moral imbecile is one born destitute of the moral sense, a *criminal-ne ammal*, therefore vicious.

How can we reform what has never been formed? He may for a purpose of his own simulate some form of good, and be bright enough at it, but the end gained, the pressure removed, he returns to his filth.

Even granted that the individual has reformed during the brief period of training, sent back into the world he may lead an absolutely blameless life and yet transmit the taint, concentrated, perhaps doubled or thribbled in the only connection such as he would be likely to make—reproducing a monstrosity both moral and mental.

At the fourth international Congress of Criminal Anthropology held at Geneva, August 24th, 1896, special medical treatment was advocated for confirmed criminals, epileptics and alcoholics, and it was suggested that the efforts of society should be directed to raising to a higher moral atmosphere from their earliest infancy, those who are congenital "criminaloids," that they on the one hand have no intercourse with depraved associates, and on the other that they be not allowed to corrupt decent children.

Legrain calls attention to the evil of alcoholism threatening peril to generations yet unborn. He believes that this should be taught in the schools, and impressed upon legislators as a guiding principal, and suggests the permanent sequestration of habitual drunkards with the aim of preventing production.

Malarewski advocated the establishment of medico-pedagogic schools and training colonies for those in whom is found a predisposition to degeneracy, thus shutting them off from the world.

Reformatories, however well conducted, do not touch the root of the evil. Science points to a three-fold method which

society will sooner or later in self defence be forced to accept—the enactment of stringent marriage laws, surgical interference, and permanent sequestration.

Connecticut and New York have each taken steps in the right direction forbidding, by recent acts of assembly the marriage of epileptics. This extended to include all persons of a neurotic tendency, or whose family history shows within certain prescribed limits neurotic taint, will be yet more effective.

The Spartan customs were inhuman, but they resulted in the production of a hardy race. Are we less inhuman when failing to recognize and apply a remedy to the diseased criminal, we suffer him to grow up, and then hang him for committing the crime we should have prevented?

The statement simply put is this—by denying surgical interference—by subordinating true sentiment to false sentimentality—we preserve a neurotic race to reproduce their kind ad infinitum instead of allowing them to become extinct.

The sentimentalistes oppose this, but its converts are daily increasing, and we can only hope that the inheritance of evil may yet be cut short by statutory enactment.

The way for permanent sequestration is fast being prepared through the medium of the training schools now increasing rapidly throughout the country. The difficulty which threatens hinderance to this great aim is the element that is being thrust upon us for trainable children who early recognized and placed, find soon their happiness in congenial employment in a life home.

The importance of the early recognition and permanent sequestration of the vicious child cannot be too strongly insisted upon. I have just now under my care, two most interesting examples which may well point this moral: Two boys aged respectively six and eight. The first came to us with an astonishing record of a pyromaniac. His entire conversation had been of fire, and thrice in one week had he set fire to his father's house, and nearly succeeded in burning one of the largest hospitals in Philadelphia, stealing the nurses' papers and ingeniously concealing them until he could apply the match. Of course, coming to us with such a record, he will

always be shielded from this temptation, and the desire, unfostered by gratification, may gradually disappear. The boy, a gentle unobtrusive little fellow, thus guarded, will grow up trained in quiet pursuits, find his happiness and it is to be hoped, his permanent life-work with us, and society and his family preserved from horrible tragedy.

The second more full of life is a born tramp—a persistent run-away at home—he will with us elude the vigilance of an attendant. Walking in the groves with his play-fellows he will be off like a shot. It seems a passion simply uncontrollable with him—what the Germans call *Wanderlust*—and while in other respects an interesting and engaging boy, is a constant source of anxiety to those who have him in charge.

Both of these children have a family history of neurosis. They are both typical cases each of a large class, and the necessity for them of a permanent withdrawal from the world, and the provision of congenial life pursuits under best conditions of living—is self evident—for it must be born in mind that constant watchfulness on the part of physicians, and unceasing training in constant occupation is a necessity to prevent deterioration moral, mental and physical.

The question that naturally presents itself in view of the array of facts as: how to reach this desired end of early recognition and permanent sequestration? The end being found in medico-pedagogic schools constituting happy home life. How shall the child be recognized and placed?

The movement recently made by the London School Board, following in the lead of Germany, Norway and Denmark, of providing at seventeen different centers under specialists, classes for mentally defective children will soon it is thought widen out to the other great cities of the Kingdom and must in time address itself to thoughtful minds with us.

I cannot but think that such an addition to our public school system would have an immense bearing upon this matter, simplify for us engaged in the work as nothing else could, this whole question of selection and classification.

Children recognized in the graded school as backward, defiant incorrigible or uncontrollable by ordinary methods

will drift back into these unclassified ranks to receive special and individual attention.

Here after sufficient trial will come, a record sifting—the lowest grades, the untrainable, will be placed in an asylum for idiots under custodial care. The trainable will be sent to us and we shall have an army of workers already trained in imitative stages, and ready to go forward in the various trades and occupations, we shall provide for an industrial community.

The Cause and Treatment of Cholera Morbus (Cholera Infantum),

By J. HAMILTON BROWNING, Simeon, Va.

Cholera Morbus and Cholera Infantum were, until recently, classified as distinct diseases based upon difference in predisposing causes, and symptoms which are due to the age of the patient and development of the inhibitory centres rather than upon pathological changes; therefore we use the term Cholera Infantum to designate the age of the patient and not the nature of the disease. (Cholera Morbus may be defined as a disease characterized by sudden onset, violent vomiting and purging, great prostration, and in adults by cramps in legs and arms—in children often by convulsions).

PREDISPOSING CAUSES.

1. Sudden chilling of the body, fatigue, debility and mental emotions, as they enfeeble or arrest the action of the organs of digestion. (The result of the enfeebled digestion I hope to be enabled to explain further on).

2. Season. A large per cent. of cases occur during the months of July and August, and it is more common in the cities than country for very obvious reasons. (a) Elevated temperature causes depression of the muscular and nervous forces, leading to debility and perversion of the function of digestion and nutrition; (b) The sultry days of summer that are so trying upon adults as well as children, offer the conditions most favorable for the development of micro-organisms, thus fermentation and putrefaction are hastened in the sewers, gutters, privies, refuse matter, and excrements of animals; and noxious gases (carbon dioxide), sul-

phuretted hydrogen, etc., are given off, and germs which are ever present in the atmosphere in a direct proportion to the population, and waste nitrogenous matter, are ever ready to contaminate the meat, milk or water, used as food or to prey upon those debilitated by the heat of summer and the anti-hygienic surroundings—(thus we find the disease more common and fatal in the large cities and the tenement-house districts).

Improper food is given as the most potent cause, and impure milk stands at the head of the list of improper foods. It is now generally accepted that milk poisoning is due to the formation of Tyrotoxin by germs (Eberth bacillus). The change in milk is especially rapid when administered unboiled, or in unwashed or carelessly cleaned bottles, hence artificially fed children are more subject to cholera infantum than those who nurse, provided the mother is not sickly. Flesh of diseased animals, or meat kept in damp, warm cellars, are potent causes. (I have seen several epidemics result from using meat transported in *ordinary box cars*). The milk or meat of cows with puerperal fever is extremely dangerous to use, due to the presence of tyrotoxin. Milk fever can be diagnosed by fibrilla twitching and signs of recent parturition.

Unripe fruit and vegetables may act as exciting causes, by arresting digestion, and thus allowing the formation of ptomaines in the intestines, from the germs that are ever present or from the mould deposited on stale vegetables. As is well known, certain varieties of fungi are edible, while others possess noxious and even fatal properties. The poisonous mushrooms, for example, produce a train of symptoms markedly like those of cholera morbus. A strict investigation as to the real cause is often imperative, for many of the vegetable alkaloids, which are sometimes used as poisons, produce symptoms and morbid changes similar to cholera morbus. Landor's says "Ptomaines are alkaloids obtained from dead bodies or decomposing proteids, and are identical with the alkaloids in plants." Hence I am forced to the conclusion that the most potent, if not essential, cause is due to the action of germs and the formation of ptomaines which are either taken into the system

with the food or developed in the alimentary canal, when the digestive process is enfeebled or arrested by sudden chilling of the body, fatigue, debility, mental emotion, improper food, and other predisposing causes.

TREATMENT.—Prophylactic is of first importance, especially in case of children. Cholera morbus and typhoid fever, like yellow fever and cholera, are to a large extent preventable diseases, and if the laity could be impressed with the fact that they demand as strict observance of hygienic laws as cholera, these destructive and annually recurring diseases would cease to add such alarming figures to our death rate. Fresh air and pure food is the safe guard. A grander or noble field is not open for philanthropist than the care of poor children, especially during dentition and up to the fifth year. Which assertion requires no argument, as the deaths of nearly one-half of the human race *before the fifth year is reached* is traceable to *cholera infantum*.

A healthy mother should nurse her own child regardless of the demands of *society* upon her, and the woman who neglects this great duty and law of nature is not worthy of the sacred name of *mother*. If not advisable on account of ill health, then a wet nurse should be procured, (after thorough examination by family physician,) for artificially fed children are more subject to cholera infantum than those who nurse. Carelessness and ignorance add their full complement to the dangers in artificial feeding, for the child is often entrusted to a servant that could not be depended upon to feed a pig, and the child is usually provided with a bottle holding about half a pint of sweet milk and a gum nipple, and is allowed to drink *ad libitum*; if younger bottle is placed in crib and the child dosed whenever it cries, let the cause be what it may, hence the stomach is often disordered by over feeding. Children should be fed at regular intervals, and care should be taken not to over load the stomach. The object to be attained in hand feeding is to imitate as nearly as possible the food which nature supplies for new born children. If cows milk is used it should not be diluted more than one-third. Children are often starved by giving them milk and other food too

much diluted. Tablespoonful of lime water to a bottle of milk, prevents it from becoming acid, and to a great extent prevents intestinal disorders.

When it is possible to teach the infant to take its nourishment from the spoon or cup directly without the intervention of the bottle and nipple, the feeding process is simplified, rendered more cleanly and the child will not constantly be over dosed, and is not so apt to have cholera infantum. If milk disagrees with the child, some of the various infant's foods may occasionally be used with benefit *for a short time*. Care must be taken to see that they contain the essential elements of nutrition, in proper proportions. All purely farinaceous food are to be condemned, while those containing nitrogenous as well as starchy elements, may be given. Leibig's and Mellin's foods are good.

As before stated, the treatment of cholera infantum should be mainly prophylactic. At onset of attack one-eighth to one-half grain doses of calomel every half hour often relieves the vomiting and acts as an antiseptic to bowels. To relieve thirst the child may suck ice, or a few drops of Aro. Sulph. Acid in water is often useful to allay thirst, and also acts as an astringent, hence is especially useful if intestinal symptoms persist.

If purging is excessive, camphorated tr. opium, bismuth and vegetable astringents may be used. Hot fermentations are grateful to patients. If prostration is marked, brandy is often useful. In malarial districts quinine is usually indicated. If child can't retain food, nutritive enemata must be given and cod liver oil and whiskey applied to surface is useful.

In case of adults, to relieve pain morphine should be given hypodermically, and counter irritants or hot fermentations applied to epigastrium.

To eliminate poisons, calomel followed by castor oil, or a saline should be given. Small doses of calomel, one-eighth to one-half grain. Dover's powders are of service to check diarrhoea and relieve hepatic tenderness. If prostration is marked. alcoholic stimulants must be given and heat applied to extremities. Unless diarrhoea is *protracted astringents are contra-indicated*.

Athletics,

By J. T. SEARCY, M. D., Tuscaloosa, Ala.

Athletics are one of the "fads" of the day. The current of popular and approved opinion seems to have settled somewhat in their favor. In the long run and with the many, I have no doubt they have done good. They have exerted a good example in some particulars. There is one aspect of the subject, however, I do not think has been sufficiently presented.

The amount of training necessary to render one sufficiently excellent so that he will be selected on one of the "teams" requires weeks, months, and even years of constant attention to gymnastics. I am not speaking of the loss of time, nor do I say that the time is "lost," but simply draw attention to the fact that the length of time the training goes on develops considerable change and enlargement of muscles and glandular structure, even excessive structural and functional development, largely in excess of what is required for any ordinary modes of living.

The effort and the consequent development are not altogether muscular; the mental alertness and rapidity of proper thought, required in order to excel in the field contests, develop the brain as well as the muscles. It is true this mental development is in the line and for the purpose of muscular success in the frightening arena—not in higher lines of work; but when, as in college life, it accompanies training in higher lines of thought carried on at the same time in the class room, it is easy to see how it can be beneficial, can contribute indirectly to class excellence also. So that athlete does help his brain ability in the class room by his athletic training in the field. One kind of mental improvement helps others—all being of the same organ; besides, on general hygienic principles, a sound brain is a part of a sound body and the general bodily health of the athlete helps the functions of his brain—as long as the body stays healthy.

All excellencies of all kinds are the results of previous *efforts*; the practice, that goes *to the degree of being effort*, is the kind that increases strength and ability.

The effort, that has preceded every excellence that a man has, has been either personal or ancestral. Excellencies of all kinds have *only* come about by previous efforts, and the efforts, necessary to have produced them, have been made either by the person himself or by those persons in his ancestry from whom they are inherited;—excellencies principally come from the latter source.

The young men selected for "the teams" are those who have inherited sufficient muscular ability, and accompanying brain and nerve excellencies, and then trained them still higher; generally, considerably higher, by a great deal of personal effort that, usually, has extended through months and years. The present personal advantages to the college student of athletics are evidently considerable, but why do the advantages not continue in after life?

The athletic class of citizens, as a rule, are not long lived; by no means as long lived as their conditions of health when young men had led us to suppose they would be.

In the athlete the muscle system is trained into an unusual amount of muscle structure, and the nerves and brain, that direct the muscular activities in the field contests, are trained in that kind of proficiency. The other organs of the body are also correspondingly developed. This is a larger than usual amount of repair material to be supplied and a larger amount of effete material to be removed; the lungs, the liver, the heart, the stomach, the kidneys and other parts, therefore, are developed to correspond with the muscles; the young man is, as a whole, developed physically very largely by athletic work.

The competitions of life in civilized society are, in much the largest part, conducted by the brain; the brain is much more essential than the muscle system for success in civilized life. When the college training athlete, after graduation, enters the arena of professional life, in order to succeed he has to pay constant and strict attention to his business; his brain work is exceedingly exacting and engrossing, necessarily so. He has little or no use for the muscle capacity he has developed; and in addition, his professional work, which grows on him as he succeeds in it, becomes so exacting by the

time he reaches middle life, that he has time to devote to athletics, and consequently he deteriorates in all the acquisitions he has made in that direction in his younger days. There is an excess of structure all through him; and no physiological principle is more correct than that, *disused living structure degenerates*, which means all his excessively developed organs weaken in structure and deteriorate in function. His lungs are less capable of resisting the attacks of tubercular microbes, or other diseases; his heart becomes flabby and dilatable, at the same time ready to become otherwise diseased; his digestion is defective; his bowels torpid; his liver inert; his kidneys ready to become inflamed; an excess of emunctory work is placed upon them and other organs. For short, the college amateur athlete in his after professional life is not so well for having gone through his excess of training in his younger days.

Unless a young man expects to follow a business for life that will require a constant practice of the kind of exercise that athletics training, he had better not train that much,—at any rate, not more than is just enough to keep his general system in a healthy condition, while he is pursuing the otherwise sedentary life of his college course. Overtraining means training carried to a degree over and above the amount expected to be kept up through life, or over and above the amount necessary for good health. All excess of structure in after life is unnecessary, and generally degenerates by disuse and becomes a source of disease. It is not a wonder that athletes are not long lived. They do not find or do not follow professions or kinds of work afterwards that require that much muscle strength, and deterioration and disease of the different organs readily and naturally follow.

General deterioration of structure in the body and bad functional action in the vital organs always fill the circulation with toxins, which more or less affect unpleasantly the conscious brain and produce bad feeling and discomfort. The sedentary athlete, therefore, is very apt to resort to tobacco and alcoholics to allay his constant neurasthenic discomfort. When off their professional training and after their fight, in the idle life

that follows, pugilists are very prone to take this course, and a large number of our amateur athletes do the same. In this way still rapidly they hasten their deterioration.

Malarial Congestion and Inflammation.

How They Differ and How Treated.

By DR. BEN. H. BRODNAX.

An educated German physician accosted me as follows: "Doctor I've had some very strange cases of inflammation of the stomach—the usual remedies have no effect, the vomiting and pain passes off to come on again with a chill same as before."

I suggested to him, (as he had not long lived in Louisiana,) that perhaps it was congestion of the stomach, following or accompanying, malarial attack. But he did not seem satisfied till I took him to see a case in which one or two small doses of calomel, which he admitted were not indicated in inflammation, allayed all the symptoms, and in a very few minutes.

And herein is the difference. Inflammation is ushered in with a chill. Then the fever, light at first, increasing in time, pain, vomiting of a thick glairy mucous which floats on the water, or other matter vomited. Fever continues, as also all the other symptoms.

Congestion is similar every way, the excessive thirst, vomiting, fever. Only the fever comes on very fast, in early stage is high; the vomited matter is the contents of the stomach mixed more or less with bile, and no frothy matter on top.

But congestion repeated often times run into inflammation, and then you have an inflamed stomach, aggravated, at each return, by the congestion, and in these cases you will see the frothy matter spoken of, and bile also. It is a nice point to decide at first glance, which is which, and previous malarial paroxysms decide it. If the vomiting comes on suddenly, with or following a chill, with fever, the fever high, the vomited matter being mixed with water and some bile, you can safely say "*congestion*." Go on with your calomel, 1 grain doses, till ten of them are given, every 20 minutes or half hour, with podophylline, $\frac{1}{10}$ gr. with

the last two or three doses. Clean out the intestines thoroughly. The fever and vomiting will go off with the first two or three doses of calomel. Then keep off the next chill with acetanilide, 1 to 5 grains, as to age, and as soon as the bowels are cleaned out, then *acid iron tonic*, 5 to 10 drops to two-thirds glass of water, sweetened to taste and as much as is desired as a drink. Then keep off the next chill with acetanilide, backed up, if you fear cyanosis, by Fowlers, 1 to 5 drops, or strychnine $\frac{1}{200}$ to $\frac{1}{67}$ gr., as to age, or you can give the following prescription, which Dr. A. W. Jones, of our Parish, calls his fever drops:

Acetanilide..... 45 grains, gr xl
 Deodorized tropium... 10 drops, gut. x
 Tr. digitalis..... 19 drops, gut. xv
 Spts. nitre or alcohol.. 1 oz., oz. i
 Mix—5 to 45 drops, as to age, before chill, or during fever.

It will be seen that about 1 to 5 grains of acetanilide is the proportionate dose.

But if there is no bile, only water with other matter, taken into the stomach (and usually, when you come, the water will be all, as the previous vomiting has cleaned the stomach out) with a glairy froth floating on top, and pain with light fever. Put two or three grains of nitrate of silver into an ounce of water, and after a vomiting spell, which will follow the first draught of cold water, give about a teaspoonful of the solution, using a glass spoon, or let the amount be put into a small glass and drank. Repeat in an hour. Dilute and give appropriate dose for child.

In aggravated cases $\frac{1}{50}$ to $\frac{1}{4}$ gr. morphine hypodermically, straight down, as near the stomach as possible. It acts like magic. All unpleasant symptoms vanish, and sleep and rest comes on in five or ten minutes. Let the patient sleep, and have ready when they awake, the following mixture:

Bismuth sub. nit..... 3 drachms, 3 i
 Boracic acid..... 20 grains, gr. xx
 Acelate of lead..... 3 grains, gr. iii
 Water, warm... 2 to 4 ounces, oz. ii-iv
 Mix—Gne teaspoonful, warm, every hour or two till relieved.

Perfect rest in bed, and some warm turpentine applications over the stomach.

A good help in the following:

Turpentine... .. 1 drachm, 3 i
 Sugar or syrup..... 2 “ 3 ii
 Mix thoroughly, pour in 3 or 4 ounces of hot water, stirring, let cool, strain, 1 teaspoonful doses as desired.

Or the bismuth mixture and this may be given together. Turpentine tea being used in place of water in bismuth mixture.

The “modus” of the treatment is as simple as it is good. The nitrate changes the inflammation to a burn and deadens the pain. You cover the burn with the bismuth mixture and keep it cool with the turpentine tea. It is common sense, therefore correct; and a success every time if you can convince your patient that he can do without any solid food for two days and not die.

Laudanum or morphine can be added to the bismuth mixture if desired, but it is best to give it separately, or in each dose as administered. The hypodermic being the best plan. The idea that congestion will pass into inflammation is fully borne out in my experience, and when inflammation has supervened as congestion, it is to be treated as inflammation.

So much do they resemble each other that I have known congestion to run on until the vomited matter resembled the black vomit of yellow fever. Three cases on a large plantation at one time, came near stampeding the whole population on the place, if I had not shown them how easily the nit. of silver controlled it, and no return of the trouble.

I was not surprised at my brother, the German Doctor, being puzzled, but I had had to work out the difference and treatment by myself and no one to advise with.

I would like to urge the nitrate treatment on my brethren when it is an acute attack, or even in mild cases of gastritis. I have seen cases, of eight days standing of the most distressing vomiting, hic-cough, and pain, relieved by a single dose, and only once repeated assured cure. There is no dread of any poisonous effect, as the dose has seldom to be given more than two or three times.

All fluids given in either affection should be warm.

A Review of Serum Therapy.

By M. H. LOGAN, Ph.G., M. D., San Francisco.

The pathogenic action of bacteria is shown to be due to the presence of toxic products formed during the development of the bacterial cells. These toxins and

toxalbumins have been studied in relation to their causation of disease.

There exists throughout the animal kingdom a certain degree of natural immunity. There is also an acquired immunity which may be cultivated by proper sanitation and by gradual exposure to bacterial influence.

Some of these pathogenic bacteria—notably the alimentary *saprophytes*, *micrococcus pneumoniae crouposa*, *staphylococcus aureus* and *albus*, and *diphtheria bacilli*—are often found upon healthy individuals.

Natural immunity is due to the presence in the blood serum of a germicidal substance which has its origin in the leucocytes, and is soluble only in alkaline media. Local infection is resisted by an afflux of leucocytes to the point of invasion. Phagocytosis is of secondary importance in this connection.

Acquired immunity has been made the subject of most elaborate scientific investigation. Since pathogenic virulence depends upon the toxic substances formed during the active development of the bacteria, a diminished virulence means a diminished production of toxins. Animals may be made immune by inoculating them with filtered cultures which contain the toxins only, and are free from all living bacteria. The protection seems to reside in the peculiar properties of the protoplasm, which enable it to adapt itself to varying conditions and injurious substances, and to transmit the impression so received to its offshoots, which carry it through the life of the individual.

Of the twenty or more recognized microbial diseases ten are peculiar to man.

Cholera spirillum or *comma bacillus* is accompanied by or produces very poisonous toxalbumins. A filtered solution of bouillon culture free from all living bacilli still retains the toxalbumins. 2cc. of such a solution is sufficient to establish a certain degree of immunity in man. Each symptom of cholera is ascribed to a particular toxin or ptomaine, the effect of *cholera bacilli*, and the whole results are due to the combined action of these eight or nine substances.

Diphtheria is now recognized as due to the absorption of the toxalbumins of the Klebs-Loeffler bacillus. Bouillon cultures of the bacillus are treated to a temperature of 70 degrees C. This des-

troys the bacillus and the deadly toxalbumin, but the immunizing properties are not injured, so we must conclude that the filtered cultures are composed of a toxin which is destroyed at 70 degrees C., and an antitoxin which is not so destroyed. For the production of the antitoxin a horse is given doses of a filtered culture, beginning with 5 cc. and gradually increasing the amount until on the 88th day three hundred cc. are taken. Six or eight litres of blood are then drawn from the jugular vein, and placed in an ice chest for 24 hours, for the separation of the serum to take place. This serum is now called antitoxin and is given in doses of 5 to 40 cc. according to the age of the patient.

No micro-organism has been discovered in the case of hydrophobia, yet it is evident from the symptoms that the poison belongs to the toxalbumins. The disease having its seat within the nerve substance an emulsion of the spinal cord of an immunized sheep is used as an antitoxin, and the results are good.

The toxin of tetanus is the most deadly of poisons, 0.23 of a milligram being fatal to a man. It is 150 times as potent as strychnia, and 600 times as potent as atropina. It appears to be a ptomaine, and resembles serpent poison. The blood serum of an immunized animal is treated with alcohol, which gives a white precipitate soluble in water. This is the antitoxin. A dose of 40 centigrams has cured tetanus in man.

Many varieties of tuberculin have been prepared for tuberculosis. Koch's is prepared in an infusion of calf's flesh or beef extract. From this a white precipitate is obtained with alcohol. One-half to one gram in glycerine and water is the dose. The treatment should be pursued for a year, and still the hardy bacillus often survives.

Erysipelas, puerperal fever, and some forms of diphtheritic inflammation are said to be due to *streptococcus pyogenes*. The antitoxin has not proved successful.

Typhoid fever antitoxin is also a failure up to the present time.

In the case of yellow fever no specific micro-organism has been discovered.

In anthrax, glanders, and pluro-pneumonia of cattle the antitoxins have proved very successful.

The X ray is said to have microbicide

properties of considerable value. Hundreds of thousands of dollars, many years of patient study, any number of animal lives, and some human lives have been sacrificed in chasing this beautiful chimera of immunity, and the end is not yet.

Domestic Practice on the Frontier in the Early Eighties.

By T. R. MILLARD, M. D., San Diego, Cal.

The recent commendation by a Russian surgeon of wood ashes as a dressing for surgical wounds, which he adopted after having seen it used by the peasantry, induces me to think that a few references to early domestic practice in this country may be of interest to some of the young doctors. The intention is to mention only a few of the methods and medicines in use in the locality where I was brought up, which are now seldom or never used, and which seem likely to be soon forgotten.

I can corroborate all that the Russian says in favor of wood ashes. It was in common use in my boyhood days and I have often used it on myself and companions when hunting and camping. The scab is not so firm as nature's blood scab, but if a little care is taken to prevent its premature removal, the scarr shows less plainly.

Among many African tribes, as well as among some of our Indian tribes, the man who can show a goodly number of large welts and callosities from self inflicted wounds is accepted as brave. The manner of producing them is the same on both continents, and is by repeatedly stuffing the wound with wood ashes until a satisfactory amount of callus is formed. I have seen Indians whose bodies looked as if pieces of rope several inches long were imbedded in the skin, and of which they were very proud. Their production often occupies several moons, and they say that no Indian ever died while making them. It is commonly said the ashes are used to prevent quick healing of the wound. But many other things will do that.

Did the man who invented the plan select ashes because he knew that it was a perfect and always to be got antiseptic? So I believe, and as is the case with

many other customs, the reason for it is forgotten, while the custom remains.

Here is another use for ashes which may gain some country Doctor a good deal of gratitude, if not from his patient then from his patron. The patron may call on his Doctor for a cure for a running pole-evil. Here it is. Clean and dry the fistula, and then pack it full of ashes of recently burned corn cobs. Occasionally it may need to be repeated, but seldom more than once. It may be well to add that the ashes should be well tempered from the bottom of the fistula, and the horse then fastened by two halter straps so that the head cannot be got lower than the level of the shoulders for eight to twelve hours, and then turned out to graze, or at least be compelled to gather his food from the ground. The after treatment should be such as he would use if his patient were a plantigrade.

The pioneer baby had the same sort of earache that the future baby will have and had all the domestic remedies applied that the present baby does have. When these all failed to give relief, resort was had to what was called Dutch doctoring. This was to apply a poultice of hot fresh goose dung. The baby sometimes survived, and chronic ear disease followed just about as often as it does the treatment of the aural specialist of today.

At one time I was inclined to think the Dutch got this prescription from the Slavs, for it is still in use among all the Slav people of Europe. But a few years ago it was found in an ancient Egyptian Papyrus, and I would not be at all surprised to learn that they got it from Chaldea, which was hoary with age when Egypt was an infant.

Writers upon materia medica tell us in effect, that ginseng root is only valuable to sell to the heathen Chinese. But the pioneers believed it to be a sovereign remedy for dyspepsia with flatulence. I wonder if the exploiters of "Seng" took council with their great-grandmothers, or the heathen Chinese before preparing it. However that may be, I shall always have a good word for ginseng, as for some years I used it from the time winter apples were gone, until the seeds in new apples become so firm they could not be mashed between my thumb and

finger, when in place of ginseng root my pockets were daily filled with half grown apples, and during all these years dyspepsia was to me unknown. Could proof be more positive that it is a powerful preventor of dyspepsia?

Nonsense aside. Let no brilliant fourth year student imagine that those old pioneers were fools. They had one sense that we seem to have lost. The sense to know when they had a good thing and to hold on to it until they got a better.

In proof of this, a list of our indigenous remedies that did not fairly fight their way to official recognition by long domestic use is very short. For proof that their degenerate descendants have lost this sense, see how ready we are to give up the best thing we have when told to do so by some broken jawed fellow from the "Goat Rhine Land," and if he will only offer us an inferior trade marked substitute, certified to by Pivat-Her-Docent-Dunder-Berg-Koff, he can draw from our pockets dollars unnumbered.

Warm or tepid sponge baths were much used in all sorts of fevers. General cold baths never. The bath was of white lye, i. e., water to which ashes was added until it had a slippery feel. The use of ashes was not the only example that they appreciated as antiseptics.

The common treatment for carbuncles, and boils that did not readily shed their cores, was to place a cone of linen lint on the steel of an axe bit, ignite it and hold the steel of another axe bit over it until the lint consumed. Then a bit of lint of proper size was dipped in lard and as much of the lard pressed out as possible, and the lint made to take up as much of the burnt residue as possible, and then stuffed into the cavity, and the surrounding area was well blackened with the product of combustion. If danger boils threatened, each was covered with a bit of lint prepared in the same manner. I do not know the complete chemistry of this residue, but its principal ingredients are carbon and pyroligneous acid. A pretty good antiseptic. At one time this was much used on cracked nipples, but about the close of the first quarter of the Century some one brought to the frontier the plan of using egg oil, and it supplanted the old treatment. The completeness with which this has dropped out of use is another proof that we don't know enough

to keep a good thing when we have it. There is but one better application, and that is composed of linolin, ichthiol, etc.

But I started out to tell of pioneer domestic practice, and not what every Doctor who professes to march in the procession, near the bandwagon, is expected to know.

My first taste of creosote reminded me so strongly of this old carbuncle remedy that I was ready to believe it of great value, and this belief was strengthened while I was a student, by seeing Prof. Brainard, by its aid, secure complete cicatrization, after ulceration had so completely destroyed a nose that the ethmoid bone was plainly seen.

The first instrument I got, after getting my diploma, was a hypodermic syringe. It had to be got from New York, and was the first one I ever saw. I regret that the fragments were not kept as a curiosity. No surgeon today would use its like, yet with it I got such reputation as a remote country doctor may get, by injecting creosote into carbuncles, just as the up to date surgeon injects carbolic acid. The acid has since been used, but I have never been sure that the result was better than was got with creosote. But it was new; it came from Europe, and was scientific, and, well I always liked to know where the head of the procession was, even if I did not get there.

The Use of Sodium Salicylate in Ankle Sprains,

By FORBES GODFREY, M. D., Mimico, Toronto, Canada.

Without claiming any priority in the use of this drug for that most common of surgical affections, viz., tibio-tarsal sprain I wish to draw the attention of medical men to the fact that they can treat their patients, who have been so unfortunate as to get their pedal extremities into a position where undue strain has been thrown upon the complicated ligaments of the ankle joint, by simply rolling the offending member in surgical wool, retained in position by a flannel bandage, elevation sufficient to favor venous return and rest in that position for two or three days, if they will give the following mixture internally:

R	Soda salicyl.....	3 i
	Ol. Gaultheriæ.....	3 i
	Spt. vini rect. q. s. ad. salve.	
	Glycerine.....	3 iv
	Aq. q. s. ad.	3 viii

Sig—Dessertspoonful in water four times during 24 hours.

I am not able to explain the *modus operandi* of the above, but this I do know that it acts in a most remarkable manner and the most skeptical will be convinced if they only give it a fair trial.

The following case culled from a number will give an idea of how it acts:

W. E. B., aet 33 years, while playing with the Canadian football team during their English tour, received a very severe ankle sprain, which incapacitated him from playing for two months. Two years after, while playing a series of matches in Toronto, Canada, he sprained the other ankle. I was asked to see him and found the usual appearance of a rather severe tibio-tarsal sprain. He was at once put upon the treatment I advocate above.

Just two weeks from the day he injured his leg he played in another championship match and received "honorable mention in the despatches.

I could go on reciting cases as successful as the above, but it is not necessary, "the proof of the pudding is in the eating."

Medical Philosophy.

Dr. Juan N. Revueltas, (Pan American Medical Congress Nov. 17, '96.)

1 What is the ultimate object that the physician arrives at by means of his knowledge? The physician studies with the object of fulfilling the most important Sociological object of the many which affect Society and humanity in general, because not only is his mission that of alleviating and comforting individuals of the community in the midst of their sufferings from disease, but it also works for Hygiene and the modification of the species in the most favorable sense to itself, and so that it may be better able to resist the stress, disturbances and ordinary dangers of any such disease, and which, in the absence of the necessary resisting power, render life more difficult and therefore less grateful. Besides this, the physician in the member of the community who, through his Biological

knowledge, is best adapted to advise the Legislator, seeing that in all legislations it is necessary to bear in mind that the laws are enacted for beings who are endowed with life, and that one of principal objects of all social laws, is that of protecting Life, encouraging its development and diffusing all those enjoyments, that are desirable in the fullest sense of the word.

2. What is Philosophy, and in what way does it serve the Physician? Philosophy is the combination of all human knowledge, organized and assimilated by Humanity, in search for absolute truth and happiness. And see that the object of the physician is to procure the happiness of the individual and of the community in general, by means of the functional equilibrium of the organic and relative Life, he has need of the philosophical knowledge which leads to that end.

3. What is the limit of Medical Philanthropy; should it be definite or is there any consideration that should detain it? On this point, there are many observations that affect the community in general, and which the Physicians must understand in the sense of social Philaxis.

Appendicitis; to Operate or Not to Operate.

Dr. J. B. Murphy, of Chicago, said at the recent meeting of the Mississippi Valley Medical Association that the surgeon is brought face to face with a condition which has a recognized mortality of from about five per cent. to eight per cent. He thought such a percentage is too high. We first have to contend with the presence or absence of a suppuration. In four hundred and fifty cases he did not think there had been an entire absence of pus in one single instance. He was satisfied there are some cases which can be cured by medicine, but can they be differentiated? By medical treatment we have a mortality of ten per cent. and if we have three per cent. by the knife then we must operate to save the other seven per cent. Not every case can be operated upon, but the conditions will show whether or not it is advisable.

Abscess of Spleen Cured by Incision and Drainage.

Dr. W. G. Black reports in the British Medical Journal, Oct. 17th, 1896, a patient, 21 years of age, healthy until two years ago, when in Brazil caught yellow fever. was twelve days in hospital, was very bad with it and very weak for some time, was unable to do anything for three or four months.

His symptoms were pains in the head and back, pain in the calf and the legs. There was no hæmatemesis. He was one of a crew of thirty-four; twenty-eight caught the fever, and all died save four. After getting a fresh crew together of ten men, they sailed for Santos in Brazil. The four men remaining from the original August again caught the fever, and the patient did not suffer on this occasion. Soon after this, he noticed that if he did hard work he had pain under the left costal arch in the splenic region, it was occasionally a gripping pain, but more frequently an aching one. It checked his breathing and he could bear no pressure.

He is pale and anæmic, is a well built man; he has lost weight in the last few months. Heart normal, liver enlarged 5.66 inch in middle line. Spleen: dullness extends from costal arch to 2 inches above iliac spine. Its inner border was 2 inches from the margin of the rectus. Blood: red corpuscles form rouleaux, white corpuscles much increased, 35 to 45 in the field. No sugar and no albumen, but the white corpuscles were very greatly increased, from 35 to 45 in the field, no sugar or albumen.

The doctor removed the patient to a private hospital and operated on him; he made an incision, $3\frac{1}{2}$ inches long, directly across the tumour. On opening the sac, about $3\frac{1}{2}$ pints of bluish yellow pus escaped. Inserting his hand into the cavity the doctor found fibrous trabeculae in the ordinary spleen from the spleen substance had broken down, a large quantity escaped at the operation. The cavity was curetted, washed several times with antiseptic lotion, it was plugged with iodoform gauze. The night before the operation, which was on June 24th, he had a rigor and a temperature of 104° , with a pulse of 98. After the operation

he never had a symptom, the wound healed rapidly.

Functions of Physical Agents in Infectious Diseases.

Dr. Jesus E. Monjaras, (Pan American Medical Congress, Nov. 1896.

The influence of physical agents on infectious diseases, has been known from time immemorial.

The resources for investigation in modern times, far from depriving them of their influence, have taught us the way to clear up their methods of working in these diseases, and to discover how through their almost exclusive influence, these infectious diseases can be turned into epidemics.

In the development of epidemics, they represent the principal causes, and their influence is more powerful than the condition of the individual as well as that of the bad hygienic conditions.

This arises from the fact that their action includes a considerable group of units; all the inhabitants of a city and even of a country may suffer through their influence at the same time.

According to the strength of the fever, its influences can become beneficial and can prevent an infectious disease from assuming an epidemic character, and can at the same time harden the individuals.

Modern Science understands and can employ the means for counteracting their pernicious influence and converting it into a benefit.

Combined with good Hygienic conditions, this influence can be made to endow communities with immunity against any epidemic disease and permanently exhaust the pathogenic influence of the micro-organisms that gives rise to it.

These resources being conveniently managed, the Physician is able to convert them into the most valuable therapeutic agents, even for individual cases.

The scientific corporations, the Governments and the Nations themselves, ought to take more interest in the study of the physical agents, with the object of introducing prompt and efficacious remedies against the bad hygienic conditions of the cities, the towns and the races.

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DIURETIN is indicated in all cases of dropsy arising from cardiac or renal affections.

It possesses *no toxic properties*, and can be administered in large doses for a long period without fear of consequence, or acquirement of a habit.

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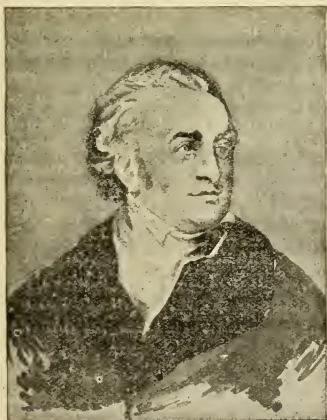
The most excellent results are obtained in *cardiac hydrops*, but in *chronic nephritis* also the action of DIURETIN is in most cases superior to that of all other diuretics.

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As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to

Mr. FELLOWS, 48 Vesey Street NEW YORK.

THE

Charlotte Medical Journal.

E. C. REGISTER, M. D.

J. C. MONTGOMERY, M. D.

Editors and Publishers.

No. 36 SOUTH TRYON STREET, - - - -

- - - - - CHARLOTTE, N. C.

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Two years since an obnoxious and burdensome law was passed by the Legislature of North Carolina, which imposed a tax of ten dollars a year upon each physician practicing medicine within its bounds. The medical profession and press of the country at large unanimously condemned this action and were loud in their denunciation of the outrage. That the tax is unjust and class legislation aimed at a most worthy and humane portion of the community no one can gainsay. No body of men are more deserving of consideration by the State than are physicians, and the legal proposition that taxation must bear equally upon classes has been signally violated in this instance. The economic value of the physician's voluntary and charitable services to his State is well nigh incalculable. The human lives saved and perpetuated through the humane efforts and free services of this class of citizens cannot be estimated alone in dollars and cents, yet by these standards they would approach millions every year. At the ensuing term of the Legislature we trust that steps will be taken to repeal this iniquitous law and lift this burden from those who are in many instances really unable to bear it. We desire that the profession of the State, who are always upright, fair and zealous for what is good in the body politic, will unite and bring their influence to bear upon their several county representatives and have this law stricken from the statute-books. There are several members of the legislative body who are themselves physicians and understand the nature and character of the oppression full well. We trust they will be on the alert and use what information and ability they may possess to further the suggestions here made. With-

proper efforts, since there will be no good reason for an opposition, this law can be repealed.

ORIGINALITY.

Originality is manifested in medical literature in at least two ways. One relates to the presentation of new facts or truths; the other to new methods of applying a fact or truth in general or special cases. Much of the criticism of books and papers by pseudo-critics is the result of failure to comprehend these differences. An attempt should be made to find the view point of the writer. When the point of view is discovered the reviewer is in a position to render a justly favorable or adverse criticism according to the correct or incorrect reasoning or statements of the writer. Unjust criticism has driven many good writers and superior practitioners from the field of medical literature with undoubted loss to the profession.

While the critic is thus under certain obligations to an author, the latter likewise has obligations resting upon him. Our profession is composed of men who are too busy to read long descriptions or discussions of dogmas, theories, systems or opinions which are not susceptible of physical, chemical or physiological proof. We want interesting facts or methods, or truths, but not necessarily skeletons; good writing is as praiseworthy in medical as in general literature.

Another responsibility there is which rests on the entire profession. What is of especial interest in our experience may be of value to others. We owe it to the profession to give the benefit of our experience that those who need it may be profited thereby. It is our experience which constitutes our original work and leads us to original discoveries. These discoveries, this original work, may be helpful to others, and they are entitled to a knowledge of them.

PALATABLE PRESCRIBING.

It is one of the mysteries why the members of the regular medical profession pay so little attention to the palatability of the various remedies and the size of the doses prescribed. It is probable that in the case of many of the

older practitioners routine habits have been formed from which it is difficult to break loose. Among younger graduates the course of study has been and is along pathological lines and as a result of the present day teaching we find the younger men in the profession spending a great deal of time in mapping out the exact technical pathological condition of internal organs when but a fractional portion of this time is given to the study of treatment and none at all to method or size of dosage.

It has already been a difficulty against which regular medicine had to contend that the delicate stomach of the invalid has ever rebelled and ever will against the bitter and otherwise vile decoctions and the pills of door-knob size which have come down to us from the past, extremely orthodox, no doubt, but also extremely obnoxious to the invalid.

The most modern text-books upon practice seem to regard the matter of palatability of dosage as one scarcely worthy of a great deal of attention. As a result of such causes we find too many practitioners who may be very earnest students of modern methods of diagnosis still apparently oblivious of the fact that the pharmacy of the present time has made it possible to render the invalids' dose much less disgusting than formerly. It is even possible, in many cases, to render the swallowing of medicine actually pleasant if a little thought be given to the matter. The elegant elixirs, the effervescent salts, the minute coated granules which can be so readily taken, furnish means which it will be well for physicians to take advantage of in order to meet the sharp competition of quackery. Neither are these newer and smaller and more pleasant doses any less efficient than those of the past. It therefore also becomes a duty which the physician owes to his patient to try to render his journey back to health a less disagreeable one.

IMPORTANCE OF THE STUDY OF ANATOMY.

If one were asked to name that study among those relating to the physician's life-work which is most neglected by the practical physician it could probably with truth be said to be that foundation science of medical learning, anatomy. The average doctor will probably at sight of

these words re-call with a shiver the student days when he was asked to describe and name the characteristics and markings of the sphenoid bone. Perhaps the fact that more or less a matter of compulsion for him to memorize technicalities and listen to prosy descriptions of anatomical lectures may furnish the reason why in after life he refers so infrequently to his anatomy.

To the student there is no doubt that anatomy is a dry study. The lecturer upon that topic is too often uninteresting. Perhaps but one man ever lived who was able to make the dry details of anatomical and physiological study interesting. Oliver Wendell Holmes in a lectureship of nearly forty years in the Harvard Medical school, each day before his class made the dry bones of anatomical knowledge, the barren, gloomy facts of science, gleam and sparkle with all that genial wit, that wealth of illustration, that beautiful imagery which, in another and still broader field, has endeared him to all of us as the delightful and kindly "Autocrat and Poet of the Breakfast Table."

And yet, if by reason of the inherent difficulties of the subject or the lack of skillful presentation to us as students, our knowledge of the science shall have been somewhat superficial, there is all the more reason for us in later life to make up any deficiency by frequent review in the odd moments of leisure, always keeping in mind the great importance of this foundation science upon which the whole structure of medical knowledge rests and its intimate relations to practical surgery and practical medicine as well. The more thorough our knowledge of anatomy the more accurate will be our diagnosis, the more certain our prognosis and the more effectual our treatment.

HYPERMEDICATION.

In this age of progress, rapid strides are made in every line. The inventive genius is at work day and night to secure fame and fortune. In no field are his efforts more manifest than in medicine. The numerous remedies in the market afford abundant proof of his efforts.

Through agents and circulars the physician is constantly being solicited, by manufacturing chemists, to try new drugs;

not only synthetical products, but happy combinations of old and tried remedies. The patent-medicine man assiduously continues to increase the number of his panaceal compounds, and meets the demand with a square front. The old Indian doctor discovers new herbs, and even the faithful grandma does not hesitate to make modification in her traditional "sure cures" in order to increase their mysterious possibilities.

Many of the newer discoveries are kindly received, but the older, time tried articles are continued in stock as staples. All are guaranteed "to meet a long felt want." Thus a surprising patronage is enjoyed by all who traffic in these cure-alls of human ailments, whether compounding or dealers.

When we consider that bases of all legitimate business rests upon an unvarying correspondence between supply and demand, we must naturally conclude that the diseases incident to human kind must be largely on the increase, or else there is a craze abroad to be constantly taking something, whether the physical difficulty be imaginary or real. The medical practitioner will scarce need hesitate in declaring the latter to be the case. He should then ask himself the question, "Am I responsible in any way for this excessive medication?" * * *

In this age of rush and undue activity people haven't time to be sick. They take anything that promises speedy restoration; in fact they demand it, even if untoward effects are produced.

Patients do not hesitate to take charge of their own cases. They go or send to the drug store and call its accommodating proprietor in consultation. He is asked to select one of the numerous nostrums which fill his shelves and whose elaborately designed ads. decorate his cases, doors and windows. Being posted he is even ready to advise the one which is best for each particular case, be it toothache, cholera or consumption.

The busy business man, however, who has become a victim to grippe, prefers to take no chances and calls in a physician. He is aching from head to foot. He suffers from fever, sleeplessness, general prostration, etc., etc. He insists upon the immediate arrest of all symptoms—for business matters require his attention. His demand is imperative.

The physician, realizing that he has no mortgage upon his patient—at least not just yet—and that competition is high, caters to his patient's wishes and writes from four to six prescriptions. This keeps the miserable man taking medicine every 30 or 60 minutes; but that is his idea, and it is wonderfully comforting to his mind to feel that "all is being done that can be done." Should he recover he compliments his physician on his faithfulness and rare skill. He is also exceedingly grateful to the doctor for his reasonable charges, for his bill was even less than the druggists. * * *

While this rush of business life creates, in a measure, this generous drug store patronage, yet the greater part of the burden no doubt lies upon the shoulders of the patent medicine vendor. However, the regular practitioner is not wholly without responsibility. There is manifestly too great readiness on the part of the physician to acquiesce in the wishes of his patrons. In other words he is too politic in this particular—especially so if the prescriptions are filled at his own drug store. It is certainly right for the physician to magnify his profession, but it should be done upon a true basis and not by attributing hypothetical powers to his remedies. The people should have the intelligent assurance that he cannot force health into the veins of his patients, but at best can only augment *vis medicatrix nature*. That a few well directed remedies will accomplish all that can be done, and more would simply retard the progress of the curative processes.

It is now possible to meet the counter-prescribing druggist, the patent medicine druggists and the substituting druggist upon their own ground. Modern achievements in the preparation of medicines render such assistance to the physician that even the busy practitioner can, in a great measure, supply his patrons with a minimum expenditure of time and money. He has a better guarantee that his patient gets what is prescribed, inasmuch as the manufacturing chemist, as a rule, is more reliable than the average druggist. Besides the strong hold of his competing homeopathic brother is assailed. The small quantities which the physician leaves on his daily rounds, and the good results coming therefrom, would do much to educate the people and check, in a

great measure, this tendency on the part of both the profession and the laity to hypermedication.

While we believe there is more credit due the physician who kills his patient with too much medicine than is due the one who lets him die for want of it, yet the golden mean should be the aim of all.

THE LANGUAGE OF PHYSICIANS.

There is no class of professional men, who should exercise more care in the use of language, than the physician.

The science of medicine should be so exalted by its practitioners that the laity could see the martyrdom of those whose lives are spent in the work; and such implicit confidence should exist between the physician that his word would not be questioned. The reason that this condition does not exist, is in most part, due to the physician himself. How often we find the family's medical adviser careless as to his statements in reference to a patient, he will make one prognosis to the invalid, another to the friend, and still another to the neighbors. Some physicians are in the habit of magnifying slight ailments and by so doing greatly alarm parents. How often we hear of doctors getting to the bedside "just in time to save the child's life" or "if they had been an hour later the child would have had some fatal malady."

And some physicians are so unprofessional as to criticise the treatment that may have been given by some brother practitioner.

Such conduct as this should be condemned in the most severe manner.

Is it any wonder that the practices of medicine is looked upon by many as a calling of "Quackery?"

The physician when he enters the sick room in answer to a hasty summons should realize that he is looked upon as an Angel of Mercy from whom the patient and friends should expect nothing but words of soberness and truth; his language should be well and carefully chosen.

The words of the doctor are never forgotten by those who are most interested. A mistaken prognosis will redound to his dishonor, and for him to speak lightly of a condition that may prove fatal will never be forgiven. If a

patient conditions is such that there is no hope from the science of medicine or art of surgery then a plain statement of facts should be made and the situation thoroughly explained.

AN OLD OPERATION FOR VESICAL CALCULI REVIVED UNDER MODERN TECHNIQUE.

Time is a various mother! One of the most recent operations evolved from the surgery of the dark ages and made useful by the scientific methods of the nineteenth century is one described by Dr. T. B. Keyes in the American Journal of Surgery.

The incision is made through the rectum into the bladder preferably on the left side, and consists essentially of the following steps after the relief of the cysts which so often accompanies vesical calculi. This of course must be done sometime previous to the operation.

To the proper and through aseptic preparation of the rectum and sigmoid in the twenty four hours preceding the operation by two washings with green soap enemata, followed by boric acid solution.

When anesthesia is profound the sphincter ani is carefully but completely paralyzed—usually with a bivalve speculum. The rectum is next perfectly scrubbed, washed out with alcohol and irrigated with the boric solution, and four ounces of warm, sterile milk injected into the bladder. (The milk is used on account of its color.) Then a small Thompsons lithotrite is passed through the urethra into the bladder; and made to grasp the stone, which is pushed down, and after thoroughly drying the rectum an incision is made over the bulging surface of the stone just above the sphincter, longitudinally into the neck of the bladder, the stone is simultaneously pushed into the opening by the lithotrite.

The next step which is of the greatest importance is the introduction of animal sutures to close the opening from the rectum into the bladder. The suture consisting of a single tendo suture, is placed in such a manner as not to penetrate the mucous membrane of either the rectum or bladder and at right angles to the line of incision; each succeeding stitch must enter directly opposite the emergency

stitch, so that upon tension the parts are coated without the least puckering. This leaves but a trifling amount of raw surface unclosed by sutures, but another row of stitches should be put in just within the divided edges, completely burying the first row. The wound is then sealed with iodoform collodion, strengthened by a few fibres of cotton and the operation is finished.

This operation is recommended for small hard stones that cannot be treated by crushing.

HYGIENE AND THERAPEUTICS.

Along with the judicious use of drugs and remedial measures should be coupled the proper directions to best secure their actions. As prevention of disease should be the *first* consideration, so must that same hygiene be also a good *second* essential in the treatment of maladies.

Who that watches the progress of the art of physic closely and intelligently, but sees the foremost leaders are those who enter into details, even minutiae, where the lesser light fails to see. A widely known Professor of medicine to-day we have in mind, undoubtedly made his mark largely by this carefulness and hygienic watchfulness with every patient. He often has success where colleagues have failed. Why? because of attention to details of hygiene and nursing, thus preventing relapses, recurrences or perhaps re-infection by a new malady. It is not enough to cure a given disease. We should be alert to prevent the incipency of others; for it is well known that two infectious processes can go on at the same time. But since this is not the rule physicians often see but one ailment. A slight scarlatinous erythema is overlooked as a complication of a case of diphtheria. We have seen this in a recent case. The child contracted diphtheria at day schools and scarlet fever of wild type from a Sunday school classmate. There had been no hygienic precautions instituted. The case recovered and fortunately being an only child the infection was stayed.

The pathogenesis of disease should always be foremost in the physician's mind. We may then be guided to preventive measures that will stamp out further infection. Thus careful antise-

ptizing the throat in diphtheria often prevents its worse systemic manifestations, and, be it said in syphilis (as truly recognized when the eruption appears) we can prevent tertiary lesions, and lessen the liability to sclerotic cord diseases, all through hygienic measures and mercurial medication.

As the study of bacteriology advances, so must the researches in hygiene prove the more useful in life saving; yes in stamping out infectious processes. The physician in the small town may contend that these aseptic measures (isolation, ventilation, germicides) are impractical and that disease will creep in after all endeavor, betimes. Are these not exceptions? Persistence will soon educate a community, and where some intelligent person learns the good to be gained, it will spread as quickly as does your success, in a difficult obstetric case, a bad case of typhoid fever or of pneumonia. From a financial status (if one chooses to look upon hygiene even in that commonplace point of view) the careful hygienic practitioner will be the gainer in the end.

Intelligence and broadmindedness must impress a community after a time. The sooner the laity is so educated to prevent disease the earlier will the quack be relegated to oblivion and the true educated physician assume greater prestige. Couple hygiene with a thorough clinical learning and an accurate knowledge of the action of a few important drugs, then can we hope to bring medicine higher in the arts.

With hygiene added, too, as time moves on we may look for the future sons of Aesculapius to be perhaps truly scientific therapeutists.

MEDICINE AND MANUFACTURERS.

Our manufacturing chemists, chemical companies and others engaged in the manufacture of medicines for the medical profession, can not, perhaps be too highly commended, both for the general excellence of their preparations, and their careful study to please the profession in their supply to it of pure and reliable medicinal agents. From these firms, now situated in various parts of the country, we not only have the fullest supply of all remedies employed by us in the treatment of disease, but all put up in the

most eligible form, or forms, and with special reference to their highest effect and most agreeable administration. In the preparation and accurate dosings, in the form of tinctures, fluid extracts, tablets, &c., of many of the various remedies in use by the profession, the physician is not only saved the time, trouble and uncertainty in "measuring" these out, as was formerly the case, but with these now at command ready "dosed out" for him, has only, at once, to administer them, with the certainty, both as to accuracy of dose and proper effect. There could be no such thing as giving too much or too little, as so often has been the case when the physician had to do his own dosing himself. Take for instance, strychnia, arsenic, at atropia, bichloride of mercury, and other of one more toxic remedies, and how could we hope to give these in an ordinary way, that requires exactness of dose presented to us in them by these firms? And then we have their solid extracts, chemical derivatives, various compounds, &c., all providing an armamentarium for the physician, at once most reliable and effective, and ever ready at command. As just said, therefore, these manufacturers who thus furnish us our medicinal preparations, can not be too highly commended for the general excellence of their products, and their careful efforts to please the profession; whilst engaged in the manufacture and sale of legitimate remedies, only, their liberal advertisements in our medical journals, call for special and attentive notice from the profession, as not unfrequently bringing before them some new and important discovery in the line of medical agents, or the remedial treatment of disease.

DISEASES OF THE STOMACH.

The importance of a thorough knowledge of diseases of the stomach cannot be overestimated. Innumerable aches and pains, formications, tingling and numb sensations are caused by imperfect gastric digestion. The theory that the stomach is only a receptacle for the ingesta and is not strictly speaking a digestive organ has not been sustained by clinical and laboratory experience; while clinical experience testifies and laboratory experiments and observation

demonstrate that many digestive disturbances originate in the stomach and produce symptoms which frequently have been attributed to derangements of the nervous system. Many cases of headache impaired memory and inaptitude for thought and work occurring in merchants and other business men are not due to overwork and brain exhaustion as is frequently supposed, but are caused by imperfect digestion resulting from eating when the stomach is tired. When one is engaged in hard physical or mental labor the blood-flow to the stomach is decreased and a proper amount of gastric juice is not elaborated and the functions of motility and absorption are diminished. Under such circumstances digestion must be changed. Such patients may be benefited by taking only soup, beef-tea or milk for the noon meal. Sometimes cracker or bread and butter may be allowed in addition. The large meal or dinner should not be taken until the day's work is done. Thus severer forms of disease, as functional dyspepsia and chronic gastritis may be prevented.

URETERITIS.

Less than ten years ago physiologists taught that the desire for micturition was caused by a reflex from the neck of the bladder due to pressure of urine within the organ. When by reason of recent methods the interior of the bladder became subject to inspection, and the ureters to palpation and catheterization, the ureteral orifices were shown to be the real source of this reflex. With this fact established, and modern technique, more attention has been directed to the symptoms and signs of inflammation of the ureters.

Dr. Edw. P. Reynolds has called attention to the diagnosis and treatment of ureteritis in women in a paper on that subject. He says that the two most characteristic symptoms of ureteritis are: 1. Frequent micturition, increased by the erect posture, and 2. A bearing down pain, increased on standing, but usually completely relieved by a few hours rest in bed. Vaginal examination elicits tenderness and a desire to urinate on making pressure over the vaginal portion of the ureters. Cystoscopic examination usually shows gaping or redness and swelling of

the ureteral orifice or of the adjacent mucous membrane. It will thus be seen that much of what was formerly called cystitis is not a general inflammation of the mucous membrane of the bladder, as was thought, but is in reality a much more localized affection.

The existence of this ailment and the possibility of mistaking it for other sources of pain and tenderness in the pelvic region should be borne in mind. The more common affections from which it must be diagnosed are acute catarrhal salpingitis, appendicitis, and even renal colic. At the beginning of an attack there may be renal tenderness on deep pressure, later a spot of tenderness at McBurney's point, and still later at a point about one inch above Poupart's ligament. Bearing in mind the significance of the symptoms and with the means of diagnosis now at hand, this affection can be recognized with much certainty. When in addition the cause of the trouble can be made out, the proper treatment will suggest itself.

THE WILDERNESS OF MATERIA MEDICA.

Time was when the medical student could well nigh master our materia medica. Drugs were divided into classes according to their physiologic and therapeutic action. The most active drug was placed at the top of the list, the others following in regular order as their known or supposed virtues might indicate. The interest of the profession then was to obtain a better knowledge of the value of drugs that a more scientific application of them might be made in the treatment of disease. Although this excellent work still proceeds, the discovery of another line of remedies has worked evil.

The great value of some of these remedies, the coal tar derivatives, is admitted by all; but since their value was discovered the country, aye, the world, has been flooded and the profession bewildered by literature and samples of new drugs. Hungry men and gaping firms have rushed into the fascinating and fashionable business of making new medicines until their name is legion.

What can be done to help us out of this wilderness? Who will guide us into the light of a simple and rational materia medica? We have inspecting officers to look after our food, why not have an in-

spection bureau for new remedies? It would be the duty of such a bureau to investigate and have a corps of experimenters to test new remedies and determine for the profession whether the claims advanced can be sustained.

The investigation should be as strict as that which admits new remedies into the pharmacopœa. Then a physician could *know* that he was offering a reliable medicine to his patient. The difficulties of such an effort would be great, but the value of the work done should be immeasurable.

The aid of the civil authorities to prevent the indiscriminate manufacture and sale of drugs, without proper supervision as we indicated, might be required.

MANAGEMENT OF LABOR IN POSTERIOR POSITIONS OF THE VERTEX.

It is doubtless the habit of many general practitioners, in their obstetrical work, to wait until trouble arises, before adopting measures to overcome it. Two factors contribute to this indifference: the one is that the bulk of all labors terminate favorably without interference; and the other is the slender compensation of this branch of practice.

There are not a few cases of labor in which the occiput presents posteriorly where the physician can save himself much time and anxiety by acquainting himself with the position of the child before labor and advising appropriate treatment. The fact that the anterior position is the normal one should lead the physician to have the fetus assume this position before labor begins. This can usually be accomplished by postural treatment of the mother. She should be directed to assume the knee-chest or the knee-elbow posture several times daily, and to remain in this position as long as possible without fatigue, and upon resuming the reclining posture she should lie on that side toward which the fetal back is looking. In the event of not securing anterior position of the child, the most important thing is to secure complete flexion of the head and maintain it throughout the progress of the labor. This implies a frequent examination both before and after rupture of the membranes, and is, therefore, an exception to the plan of modern aseptic management, which discourages repeated

examinations. The occiput of a well flexed head will almost certainly become anterior when it reaches the perineum. If for any reason this mechanism does not occur, what measures shall be adopted to effect delivery?

These naturally vary with the high or low position of the head. If the head becomes arrested at the brim, one or another of three plans of treatment may be resorted to: 1. Efforts may be made bimanually to bring the occiput anterior. 2. Forceps (axis traction) may be applied to the head, preferably well flexed. 3. Podalic version may be done. When the bag of waters is unruptured, the first plan should be adopted. After the escape of the waters this method should still be given a trial before the application of the forceps. For this operation, as well as for podalic version, ether should be administered. If the head passes the superior strait and the occiput turns into the hollow of the sacrum, efforts both manual and instrumental should be continued to bring the occiput anterior. This failing, then, as a last resort, the forceps may be applied to the persistently posterior occiput and traction exerted until the small fontanelle appears at the vulva, and the perineum slips back to the neck.

The central truth then of this brief resume is to examine every pregnant woman before the advent of labor and correct faulty positions, and in case the patient is not seen until labor is begun endeavor to secure and maintain perfect flexion of the head throughout both first and second stages of the labor.

HYPNOTISM.

This subject seems in recent years to have engaged the attention of our therapeutic world. In spite of all that has been written on the subject, it is still far from being universally adopted, excepting in so far as it is employed unconsciously by all practitioners to a greater or less extent. The general employment of this therapeutic measure would do away with a large percentage of the at present existing charlatan institutions.

A single "faith cure" institutions in New York City has been said to treat no fewer than three hundred patients in a single day, each subject usually dropping a nickel in a box kept for the purpose of

voluntary donations. Of course it stands to reason that none, if any of these patients go for or need charity treatment, nor can it be assumed that the faith curist is suffering any financial loss by the operation.

Such institutions, as all other forms of irregular practices, should be suppressed by law, and our National, State and County Medical Associations could manage to have such a regulation passed, if our medical brethren who are members, would induce them to do it.

QUIZZING AN ADJUNCT OF MEDICAL TEACHING.

In the larger medical schools of this country the quizzing class system of teaching has long since proven a great aid in imparting knowledge to the student. While the Professor, or lecturer, presents the subject matter to the class, the quiz master fixes the essentials by constant reiteration. It is incumbent upon the quiz man to attend the didactic and clinical lectures, and prepare a digest for the student. To learn the idiosyncracies of the teacher is a study. Certain things he may have in mind may have been omitted in the lecture. Yet the student must have this knowledge for the final ordeal in the "green room." The quiz man, therefore, is a medium of exchange. He opens up new lines of thought in bright young men, stimulates them to work in competition with their fellow benchmen, and aids much in the last year of a medical course to select certain lines of special work best suited for a particular man to pursue. So close has been his contact with the student that the quiz man learns his habits, his likings and human nature.

At the University of Pennsylvania, while not an official part of the medical school, yet these bodies of active quiz masters are accepted as worthy assistants in teaching. The medical institute founded in 1817, is still extant and has had numbered as its members. Pepper, Wood, Pyson, White and others in various professional chairs. The quiz master is at once teacher and student. At times pertinent queries from the top row may bewilder him, but he is nothing daunted and "looks it up" for the next seance. This close interchange of thought en-

compasses theoretical teaching to a wonderful degree, and is what the clinic or word class work is to practical training of the medical mind.

DIPHTHERIA.

Diphtheria is one of the most insidious as well one of the most uncertain of all the infectious diseases. At no time during the course of a typical case is it free from danger, or is anxiety lessened as to its results.

Beginning as a simple sore throat, or as an ordinary follicular tonsillitis, a little redness in observed, deglutition a little difficult, the temperature may be slightly elevated, but soon excavation begins at the point of invasion, the crypts of the tonsils are obliterated, a gray membrane forms, the cervical glands begin to swell, vomiting supervenes, the nose begins to bleed, the temperature runs up higher, and then we have a picture pitiable in the extreme.

From hour to hour these symptoms increase. The membrane tough and tenacious spreads over the entire nasopharynx, and soft palates and perhaps into the larynx, breathing is obstructed, deglutition markedly interfered with, the countenance becomes pale and haggard and the patient however young, seems to give up in either abandonment or looks with pitiful eyes to those about for some morsel of relief. If the vomiting is continued and excessive, if the epistaxis free, and large, if the swelling of the glands of the neck more than fill up the hollow space below the maxillary region, or rises even beyond, if the temperature continues high, and the pulse quick, small and thready, if the membrane thickens with layer upon layer, filling every interspace and materially interferes with breathing and swallowing, the chances for recovery are very small.

In such a case the blood corpuscles are destroyed, the blood is impoverished it becomes thin and watery, it has lost its nutritive function, capillary transudation takes place, nutrition is in obedience, muscular tonicity is lost, and nerve influence abolished.

Even if such a case should be brought to convalescence, there is no security that the patient will survive. In addition or besides partial or complete paralysis

of the limbs and vocal organs, the least motion will cause faintness or dyspnoea, and at the time when we have hopes of a favorable termination the patient may die suddenly and without warning from heart failure.

Bacteriological examination of the exudate in such cases is a very great help, but there is no time to wait. By the time the result is announced, chances are lost involving the life of the patient, delays here are dangerous indeed.

The practiced and experienced eye often attendant soon discovers the nature of the disease, and without waiting or hesitation marks out the course to be pursued. He isolates his patient, removes all superfluous furniture, ventilates the department, strews disinfecting solutions about, prepares germ destroyers for sputa and all clothes, and articles in use. Uses his antitoxin, if he has been educated up to that point, or not, applies his antibacillary powders or solutions, gives his nourishment and stimulants and internal remedies as may be required, then watches the little sufferer, it may be from hour to hour, looking for results, always hopeful. But there is no hope on such cases. He who sees even one such case restored to health as the result of his treatment deserves the applause of his fellows.

"LATENT PHTHISIS."

Should patients be kept under surveillance after apparent recovery from acute attacks of pulmonary tuberculosis?

We are called upon to treat a patient with slight hemorrhages, with cough, night sweats, anæmia, and emaciation; and we find bacilli in the sputum; this proves to us that the blood is coming from the lungs and not from the posterior nares or upper pharynx. We treat her for some weeks or months until the cough disappears, the night sweats are no longer present, the anæmia is improved, but she is still weak.

We confine her with one child, with a second child. After this we send her to the country. She thrives there apparently until the last week of her stay, when she begins, for no known reason whatever, to develop a regular hectic fever with continued hemorrhages, which are only with considerable difficulty, after prolong-

ed treatment, controlled completely. She is now able to attend to her duties, and we do not see her for another spell.

This is a picture of these cases as they are regularly presented to us. Now, ought these patients to go around untreated during these intervals, until some especially severe attack carries them beyond your skill? Or should they be kept on a course of iron, creosote or other medication during this quiescent period. Until we obtain more precise knowledge on the subject, all such cases should not be discharged as cured until at least one full year has passed under constant treatment.

THE PRACTITIONER AS AN EDUCATOR IN PAUPERISM.

Why is it that so many well-to-do, or at least "able-to-pay" patients attend our charitable dispensaries or hospitals yearly? Of course the reasons for such a condition of affairs must be many and complex, but we wish to call attention especially to a very common one, and the most pernicious of all, perhaps, from the physicians' own standpoint, and that is this: The physician's want of confidence in his own ability.

In making this statement, we have in mind particularly that large class of cases which are constantly being recommended to visit some specialist in a hospital or dispensary, because the patient is not willing (but only occasionally because he really cannot afford) to have this treatment in private.

Be this as it may, it seems to us a stain on the profession that we should have to refer cases of a general character to a specialist from want of skill on our parts. Where we have to contend with an exceptional condition, the case is different. But outside of such cases, unless the patient insists, and is willing and able to pay for a specialist's services, we should refuse to recommend him to any charity for treatment.

It is this practice by the physician himself, which is responsible for a large proportion of our professional charity, seekers among the middle classes. A patient comes to a physician's office with some obstinate skin disorder, upon which he has exhausted all his skill. Finally, in a fit of desperation, he recommends the

patient to some specialist, in order to shift the responsibility from his hands. The patient, however, soon finds out that he can see the gentleman (or at least his "assistant") without expense to himself, and is soon launched upon a course of hospital or dispensary treatment which is so highly advantageous from a financial point of view that he not only returns, when an emergency arises, but recommends all his friends to do the same.

The final result of all this is that the institution becomes so overcrowded that there is an artificial demand created for something which is not needed, and before long, those who have reaped wealth through this frugal system of family medication, organize another institution on a similar basis.

As time has passed, these "charities" have become so numerous that those interested are actually forced to go begging for patients (in order to show some reason for their existence) and the result has been that many of the patients treated, who are really poor, are not sick at all, but go there for the rest and board provided.

Now these are the conditions—wherein lies the cure? Naturally, the surest way of avoiding the continuance and multiplication of such a state of affairs would be to so educate the younger members of our profession (and the older ones, too, for that matter) that every one of us shall be competent to do an ordinary operation in our office, or at the patient's home. It is a fact that every patient can not afford the large fees of a specialist, but that is no just cause why they should be treated absolutely without price, or even why they should pay our fees to support an institution, wherein we devote already enough of our services to charity.

Any physician in practice can master the technicalities of his profession, if he is only given a fair opportunity to do so. Most of us cannot afford a post graduate course in each of the specialties—besides the members of our Medical Associations believe that since they are paying annual dues in a Society, they should obtain these advantages in return.

If such courses, then, were provided by our Associations, the problem would be solved; although the fees might not be so large, the general profession would be the ultimate gainers. Even the specialist

himself would get a large share of the numerous cases he now treats for nothing, instead of being forced to charge one very rich patient the sum which should be divided amongst the lot.

UNIVERSALITY OF THE X RAYS.

It seems that all evidence tends to show that the Roentgen rays not only exist in the Crooke's tube, but that they are always present in the atmosphere, even during darkness. How high in this atmosphere the rays continue to exist it would be hard to say, but reasoning from the fact that our light originates in the heavens, we might conclude that X rays existed there. Whether these rays are associated with the invisible spectrum-rays is yet undecided. If we assume, however, that they exist in all space where electricity can penetrate, they must exist even in the recesses of the earth, and the depths of the sea.

Considering the physical conditions of our environment, we must assume that there are enormous quantities of X rays around us. We know that our atmosphere becomes more and more rarefied as we recede from the earth; we know that the air is constantly charged with electric currents—what better conditions could we have for a Roentgen apparatus. Is the blueness of our sky positively due to the color of the atmosphere alone? If the higher strata of our atmosphere are really full of these obscure rays, what problems are brought before our imagination! Perhaps the stars, which have been computed to be millions of miles from us, may be comparatively near, or on the contrary, may be still more distant; we cannot say what the effect is when we, the observers, are ourselves immersed in rays of variable character and strength.

In this connection we have made a number of experiments to determine the effect, if any, of the "Welsbach light" on photographic blue print paper. Strips of the paper were placed successively between layers of tin foil, so the light itself could not reach the photographic paper. The results demonstrated that this light probably contained X rays.

In the experiments claimed to have been made in a dark chamber, distinct radiographs were obtained on a sensitized

plate, after "exposures" of variable periods.

The practical medical importance of these additional discoveries are yet to be demonstrated.

BOOK REVIEWS.

AN AMERICAN TEXT-BOOK OF PHYSIOLOGY.

By Henry P. Bowditch, M. D.; John G. Curtis, M. D.; Henry H. Donaldson, Ph. D.; W. H. Howell, Ph. D.; M. D.; Frederic S. Lee, Ph. D.; Warren P. Lombark, M. D.; Graham Lusk, Ph. D.; W. T. Porter, M. D.; Edward T. Reichert, M. D., and Henry Sewell, Ph. D., M. D. Edited by Wm. H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Fully illustrated. Published by W. B. Saunders, 925 Walnut street, Philadelphia. 1896. Sold by subscription only. Price, cloth \$6.00; sheep, \$7.00; half morocco, \$7.00.

Again we welcome the appearance of another of that valuable series of American text-books issued by Mr. Saunders. This volume contains 1052 pages, with a complete index, and is one of the most important of the American Text-Book Series.

The work is divided into fourteen chapters, and contains contributions from the most distinguished physiologists of this country. The whole field of physiology and chemistry, as far as it is related to living organs, is thoroughly traversed. The author states in the preface a fact with which we heartily agree: That "the collaboration of several teachers in the preparation of an elementary text-book of physiology is unusual, the almost invariable rule heretofore having been for a single author to write the entire book. It does not seem desirable to attempt a discussion on the relative merits and demerits of the plans, since the method of collaboration is untried in the teaching of physiology, and there is therefore no basis for a satisfactory comparison."

Perhaps the most important advantage which may be expected to follow the use of the collaboration method is that the student gains thereby the point of view of a number of teachers. In a measure he reaps the same benefit as would be obtained by following courses of instruction under different teachers. The different standpoints assumed and the difference in emphasis laid upon the various lines of

procedure, clinical, physical, and anatomical, should give the student a better insight into the methods of the science as it exists today. In this work there seems to be combined every feature that could tend to render it valuable to the reader. The mechanical execution of the book is unexcelled, and we predict for it a large and rapid sale.

AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS FOR THE USE OF PRACTITIONERS AND STUDENTS. Edited by J. C. WILSON, M. D., Professor of the Practice of Medicine and of Clinical Medicine in the Jefferson Medical College: Attending Physician to the Hospital of the Jefferson Medical College, to the German Hospital and to the Pennsylvania Hospital, Philadelphia. Assisted by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Attending Physician to the Philadelphia Hospital. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896. For sale by Subscription only. Price, \$7.00 cloth, \$8.00 sheep, \$8.00 half morocco.

This book contains forty-two contributors which includes the names of the best known physicians in this branch of medicine. The author states that: the aim of medicine is the application of knowledge to the prevention, cure and alleviation of disease. This book is contributed to that aim. It will facilitate the application of the results of the labors of the investigator to the uses of the practising physician. The title of the work is very appropriate for all the articles have been written by American contributors, with the exception of the articles on Malaria, a very valuable and elaborate one, which was written by Prof. Laveran, and of that on Leprosy by Dr. Rake. The list of contributors comprises the names of those who have acquired merited distinction as practitioners and teachers of practice, of clinical medicine, and of the specialties. The arrangement of the book is a most excellent one—it has been based so far as it has been possible, upon modern pathologic doctrines, beginning with the intoxications, and following with the infectious, diseases due to internal animal parasites, diseases of undetermined origin, and finally the disorders of the several bodily systems—digestive, respiratory, circulating, rural, nervous and cutaneous. The writer has also wisely included a consideration of the disorders of preg-

nancy. While the editor has conformed to the title of the work—applied Therapeutics indicating the cause of treatment to be pursued at the bedside rather than to name a list of drugs that have been used at one or another time.

The work contains 1,299 pages reading matter, with plates and figures illustrating pathological conditions. It is really a condensed encyclopedia of medicine, yet is a small library within itself so far as general information on medical subjects is concerned.

A TREATISE ON SURGERY. By American authors. Edited by Roswell Park, M. D., Professor of Surgery and Clinical Surgery, Medical Department University of Buffalo, Buffalo, N. Y. In two very handsome octavo volumes, comprising about 1600 pages, with about 800 engravings, largely original, and about 40 full page plates in colors and monochrome. Volume I, General Surgery and Surgical Pathology. Vol. II, Special Surgery. Price per volume, cloth, \$4.50; leather, \$5.50 net. Lea Brothers & Co., 1896.

It is with much pleasure that we commend to you this elaborate Treatise on Surgery, edited and largely written by our distinguished friend, the well known surgeon, Roswell Park, the first volume which is now before us. This volume contains 800 pages, and is devoted to general surgery, in the preparation of which the editor has associated with his own the labors of fourteen other American surgeons, whose names are found on the title page. The names are familiar to us and are prominent both in the practice and teachings of surgery in this country.

The practitioner who desires to keep up with the progress of surgery will not find his library complete until he obtains Park's Treatise on Surgery. This work will be peculiarly adapted to the students work, because among its lists of contributors are to be found the names of prominent surgeons of almost every section of the United States, representing the methods of teaching developed in the leading medical colleges of the country. The work is already too well known to need a detailed review. The illustrations are ample. The full colored engraving possess all accuracy, which greatly adds to the value of the book. It is clearly seen that in the subdivisions of the work the many writers have embodied the teach-

ings accepted at the present time, and the methods now in vogue, both as regards the causes and the treatment of the disease and pathological conditions which are appropriately considered in general surgery. The publishers have issued the volume in excellent style. The second and last volume is now in press.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By ARTHUR M. CROWIN, A. M., M. D. Philadelphia. W. B. Saunders 925 Walnut St. 1896.

This work presents in systematic form the gist of the science of physical diagnosis as applied to the Thorax. The salient points on this subject may be more readily grasped by those who are too busy while in college to seek them out of extensive treatises in this form. It thoroughly meets the demands of the student.

THE STORY OF HUMAN PROGRESS. A BRIEF HISTORY OF CIVILIZATION. By FRANK W. BLACKMAR, Ph. D. Published by F. W. Blackmar, 1896.

This volume is a treatise on the history of civilization, especially designed for those who desire a brief survey of the whole field. In this volume are rendered all of the principle steps of human progress and a presentation of the best results of the study of physiology and history. Every branch of knowledge has its own particular charms, but the story of man's progress from a state of savagery to that of culture and learning engages the attention and arouses the sympathetic interest like no other. The book is fine reading.

THE PHYSICIAN'S VISITING LIST FOR 1897. Price, \$1.00. P. Blakiston, Son & Co., Philadelphia.

This is the forty-sixth year of this publication. It is known as the "old reliable." The copy before us is pagged for 25 patients per day or week. The fact of so many years service shows that the book has been greatly appreciated by the profession.

THE NON-HEREDITY OF INEBRIETY. By LES-TER E. KEELY, M. D., LL. D. Chicago: Scott, Foresman & Company. 1896.

Whatever people may think of Dr. Keely and his gold cure, he has sent us a very interesting book and one refreshingly unconventional.

OVER THE HOOKAH, THE TAYLES OF A TALKATIVE DOCTOR. By G. FRANK LYDSTON, M. D. Professor of Genito-Urinary Surgery in the Chicago College of Physicians and Surgeons. Professor of Criminal Anthropology in the Kent College of Law, etc. Sold by subscription only. Sent prepaid on receipt of subscription price. Price in cloth, gilt top, \$4.00. Price in morocco, full gilt, \$5.00. The Fred Klein Publishing Co., Chicago.

This book of 918 pages is an elegant, unique, and most beautifully illustrated volume, containing humorous and pathetic sketches, character studies, dialect stories, original verse and sentiment, combined with everyday medical philosophy. The illustrations are superb and number nearly 175 and are all original, being drawn from the author's designs.

Table of contents.—Several Kinds of Doctors; Apropos of Several Subjects; How a Versatile Young Doctor Reported a Society Event; The Doctor Emulates Sandow; Seeing Things; The Rhodomontade of a Sociable Skull; A Martyr to his Passions; "Old Abe" as a Musical Critic—Negro Dialect; Poker Jim—Gentlemen; Larry's Contribution to the History of Ireland—Irish Dialect; The Passing of Major Merriwether; Sprays of Original Verse.

AN ILLUSTRATED FLORA OF THE NORTHERN STATES, CANADA AND THE BRITISH POSSESSIONS. By NATHANIEL LORD BRITTON, Ph. D., and HON. ADDISON BROWN. In these volumes. Vol. I. Ophioglossaceae to Arizoa-ceae. Ferns Carpet-weed. New York; Charles Scribners' Sons. 1896.

The present work is the first complete illustrated Flora published in this country. It illustrates and describes every species from the Ferns upward. This work serves as an independent handbook of Northern Flora and as a work of general reference and as an original and supplement to the manuals of systematic botany in current use. The volume contains 612 large pages, profusely and handsomely illustrated and to the botanical student a most useful and an indispensable work.

BIJOU'S COURTSHIPS. A Study in Pink. By KATHERINE BERRY DI ZEREGA. F. Tennyson Neely, 1896, New York.

This work is on the same style as "Chiffon's Marriage," and is just as interesting reading matter.

PROTESTANTISM A STUDY IN THE DIRECTION OF RELIGIOUS TRUTH AND CHRISTIAN UNITY. By EDWARD P. USHER, A. M., LL. B. Cloth \$1.50. Lee and Shepard Publishers, Boston.

This volume is really an answer to the question. What is the Christian religion? The author is a Harvard graduate [A. B. 1873, A. M. 1875, LL. B. 1880] who has given his leisure time for nearly fifteen years to its preparation. Christianity is set forth not as sacramental or theological or hierarchical, but as purely ethical and spiritual. The author seeks to persuade Christians to give up their prejudices, to forsake their callish spirit, and see religion as it really is. He finds Christianity to be the great and final explanation of human life. He says: "This spiritual explanation of life and of man is so sublime that he who once truly apprehends it will never part with it. Whoever shall once grasp this idea clearly and adequately will feel that the scales have dropped from his eyes, and no human sophistry, however cunning, can ever again dim his vision. The conventional ideas of his past will seem paltry and mean."

LAZY TOURS IN SPAIN AND ELSEWHERE. By LOUISE CHANDLER MOULTON, Boston: Robert Brothers. 1896.

Few books are written in a more entertaining style than the one before us. The first few lines in the first chapter will give the reader a little glimpse into the character of the work and the author as a writer:

"The only bit of real estate I ever owned was 'a castle in Spain.' I have long been familiar with its aspect. I have seen its shining turrets in the crimson of sunset skies. I have heard faint music, on the winds blowing from the East, which I felt sure was caught from harps in its high windows; and mysterious scents have reached me now and then, wafted, doubtless, from its far off gardens.

THE FINDING OF LOT'S WIFE. By ALFRED CLARK. Fred. A. Stokes Company, Publishers.

This work is divided into XIX Chapters and contains something over 300 pages, with good binding and printed in good clear type.

THE PHILOSOPHY OF SEX.

This is an interesting little pamphlet of 31 pages.

THE VANISHED EMPEROR. By PERCY ANDREAE. Chicago and New York: Rand, McNally & Co.

This work contains 366 pages and is full of interest from beginning to end. It relates in good style the life of the famous old diplomatist, Sir John Templeton. It records a real episode in his extraordinary career.

LITERARY NOTES.

APPLETONS' POPULAR SCIENCE MONTHLY for December, 1896.—A strong list of contributors is presented in Appletons' Popular science Monthly for December. Mr. David A. Wells resume his papers on the Principles of Taxation in this number with a discussion of the justification and the limitations of the taxing power which will undoubtedly clear away many foggy ideas on these points. Mr. Herbert Spencer contributes an article on The Relations of Biology, Psychology, and Sociology, correcting some erroneous conceptions of his views that have arisen in America. Dr. Andrew D. White gives a synopsis of the recent book by Prof. E. P. Evans on Animal Symbolism in Ecclesiastical Architecture, describing the quaint carvings of the Middle Ages and revealing the thought that lay behind them. An article on Botanic Gardens, with views of many of the celebrated gardens of the world, is contributed by Prof. D. T. Macdougall. Another copiously illustrated article by Mabel L. Miller describes The So-called California "Diggers." The Right Hon. Leonard Courtney, M. P., gives a brief statement on Individualism *versus* Collectivism. In Possession and Mediumship the psychology of demonism and spiritism is set forth by Prof. W. R. Newbold. Under the name of Idiots Savants, Dr. Frederick Peterson describes some of those arithmetical, musical, and other prodigies that have excited much wonder by their performances. Perhaps the most readable article in the number is The Border Lord of Trampdom, in which C. W. Noble gives the observations of his summer among the hoboes. Prof. Israel C. Russell discusses the theory of Igneous Intrusives and Volcanoes. Other articles are Two Scientific Congresses, by Prof. J. Mark Baldwin; Natural

History in the Primary schools of France, by Fanny Bignon; and a sketch of Henry Darwin Rogers with Portrait. President David Starr Jordan explains his psychograph joke in a letter, and other minor matters of interest find place in the various departments.

New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

SECRETARY CARLISLE'S PATRIOTISM.—Hon. Andrew D. White, in the December Forum. One grand exception has redeemed Southern statesmanship—the course of Mr. Carlisle. From the beginning of the recent contest he has been a leader. At an earlier period, before responsibility and a close examination of the great questions at issue had settled his convictions, he had perhaps, wavered, but now there was no uncertain sound. His speech to the working men of Chicago set the true keynote of the campaign in its economical aspect. Calm, clear, convincing, weighty, that was great; but something far greater followed. His campaign in Kentucky, in which he braved the hostility of old friends, wild abuse, and even personal insult, is one of the nobler things in American history. The greatest man of this great commonwealth since Henry Clay, he has restored Kentucky to her proud position of old—as a State toward which the Union may look for counsel and leadership. Compare his position before the country, before the world at large, before history, with that of the vast majority of Southern men in high office, and especially of the Senator from his State whom the recent result leaves so utterly discredited.

A great lesson, then, in this campaign is afforded by the contrast between Mr. Carlisle and other men who ought to have been the leaders of Southern Democracy, but were not. Had Mr. Mills, in Texas, shown anything like Mr. Carlisle's faith in truth, he would have gained not only a national but a world wide reputation; had Mr. Morgan in Alabama possessed Mr. Carlisle's courage, he would have risen to the reputation which he was once expected to attain; could Mr. Daniel of Virginia have shown but a tithe of that courage, taking the lead in that grand old commonwealth which

only needed such direction to have brought her into a leading place among the States standing for real democracy, his place in history would have been far different.

"The progress of the world," the editorial department of the Review of Reviews, touches in the December number on a great variety of topics of national and internal significance. After devoting several paragraphs to a lucid and instructive analysis of the results of the Presidential election, the editor proceeds to review the history of the efforts to obtain arbitration of the Venezuelan boundary dispute with Great Britain, which have finally resulted successfully, explaining the attitude of the United States in the controversy; discusses the merits and demerits of the Cleveland administration now drawing to a close, criticising with especial vigor the President's Turkish policy; describes the latest phases of the European situation, with reference to the Eastern question and the Franco-Russian alliance; comments on Lord Rosebery's resignation and the resulting complications in English politics—making altogether a most interesting and valuable summary of the world's important doings for the month just passed.

The Atlantic Monthly has for nearly forty years stood preëminently for American literature, and a very large part of the permanent contributions to American letters during that time has first appeared in its pages. It keeps true to its long and high literary features it makes announcements for the coming season of several large magazine enterprises of more than usual interest and timeliness.

The Christmas Scribner has another of those brilliant and beautiful covers in gold and colors that first attracted popular favor on last summer's Fiction Number. The Christmas design's is by Bryson Burroughs.

HOW SHALL THE CHILD BE TAUGHT? The series of articles on The Problem of Elementary Education, by Dr. J. M. Rice, which has been in process of preparation for nearly two years will begin in the December number of The Forum.

These articles are based on special tests undertaken with more than 100,000 children, and represent an entirely new departure in the field of pedagogical study.

Protection for the Future Wife and Children,

Dr. Henry J. Garrigues, Professor of Gynecology and Obstetrics in the New York School of Clinical Medicine, Consulting Obstetric Surgeon to the New York Maternity Hospital, and Gynecologist to St. Mark's Hospital, in the same city, has furnished to the American Medico-Surgical Bulletin, Oct. 13, 1896, a paper on "Protection for the Future Wife and Children."

It is written in a very attractive style and treats of the important question, how to avoid the evil consequences of gonorrhœal infection in regard to wife and offspring. A gonorrhœa that invades the deeper parts is one of the most dangerous diseases of women and ends often in invalidism or death. Often capital operations become necessary, and are not always successful.

Is there any remedy? After an eloquent description of the virtuous young man who enters the bridal chamber as pure in body and soul as his virgin bride, the writer says, that chastity, unfortunately, is rare in the male.

After hinting at the various ways in which sexual appetite is appeased, he says that the man who has intercourse with prostitutes exposes himself to infection with syphilis and gonorrhœa, both of which may be communicated to an innocent woman who has the misfortune of marrying him. Syphilis may cause abortion or give rise to the birth of a syphilitic child; gonorrhœa often leads to the deplorable condition referred to above, and is a common cause of blindness in the new born, if it does not entail sterility.

A man may be willing to run the risk of being infected himself, but he has no right to draw his future wife and offspring into his own calamity, so much less so as their condition caused by his recklessness is infinitely worse than his own. It is, without comparison, best to be chaste, but if one has not self control enough for that, let him protect himself in order to

protect his future wife and offspring, and there is only one protection worthy of the name—the avoidance of immediate contact.

Abortion.

Dr. Walling, of Park Rapids, Minn., presents a forcible paper upon the effects of criminal abortion, upon the health of the woman, the happiness of the family, and the standing of the physician. (Medical Age, Oct. 26th, 1896).

For the purposes of his paper he does not differentiate between abortion, miscarriage, and premature labor, and asserts that abortion can take place any time after the moment of conception and up to the time when natural causes bring on natural labor. He says pregnancy should ordinarily be regarded as beginning with the consent of the female and certainly at the touch of the generative organs, any thing interfering thereafter, leaving unsatisfied a great amount of nervous energy and followed in the milder cases by confinement, displacement and chronic inflammation, and in the more grave by septicæmia, peritonitis and death.

He considers the mild condition the worst, for the reason that the bickerings, unhappiness and violation of the marriage contract, that usually follows, are worse than death at the outset. He has seen many such cases followed by nervous jealousies, loss of domestic happiness and lives drawn out in constant regrets. While he does not wish to sanction infidelity in any one, he considers that by comparison it is no worse for a man to seek pleasure away from home than for a woman to insist upon destroying that which is the highest object of civilized life and happiness. He says the law is sufficient to prevent such work and that it is an unjust comment upon physicians to say that any woman can be "helped out" for a small sum, and that this can only be refuted by constant vigilance on the part of the profession.

He thinks that pleasant homes and every thing pertaining thereto are but adjuncts to the propagation of the human race, and thinks that every copulation should be allowed its natural course, for who can tell what will come if the infant be allowed to reach maturity.

We cannot refrain from giving his

conclusions as follows: "Poverty or riches, society or seclusion, new woman or old woman, no one can afford to run the risk of taking the life, which she or any one else has helped to create, for sooner or later ill health, domestic trouble or the penitentiary overtakes such persons. And nothing can prevent the execution of the sentence passed upon man by the very condition of his existence. For the same conditions that says: 'Thou shalt not kill,' fix no limit of age outside of which a person may be destroyed, and also fixes the penalty which is immutable and everlasting.

Facts of Practical Utility with Respect to Paludism.

Dr. Jose Terres (Second Pan American Medical Congress, Nov. 16th, 1896).

I am about to repeat something which I have already said before other corporations, with respect to Paludism, and I repeat it, because it treats of facts which have come under my observation and which I consider of great practical utility.

I have remarked that there is no appreciable difference, either in the quantity or form under which the parasite is found in the digital blood of the patients, whatever may be the moment of examination with respect to the access, that is to say, that the Hematozoariæ are equally found during the access of palustic fever, shortly after its appearance, in full apiræxia or shortly before the access comes on.

In palustic catæxia, and when the accesses do not present themselves at stated periods, the parasites are scarcer, and the half moons and the grains free of pigment are then more frequent.

Ever since the year 1892, I have insisted that it is of the greatest importance to the formation of the diagnostic, to find in the blood, whether free or not, granulations of dark coffee colored pigment, as such discovery almost guarantees the diagnostic, seeing that the pigment which results on the vulgar destruction of the red globules, is of a very light coffee color, really yellow, and that the pigment of melanic cancer is rarely found in the blood.

It being easier to see the pigment than to distinguish the Hematozoariæ, I have considered it both useful and practical to

recommend that the former be searched for rather than the latter, by physicians who are not very expert with the microscope, or who have not got one at hand; but the examination ought always to be made with one that increases at least 790 diameters.

Two years after I spoke, Dr. Risquez said something similar, doubtless without knowing of my statements; but he is satisfied with an increase of 300 diameters; he says that the pigment is black and that it is only found in cases of paludism. I do not accept any of these three propositions.

The administration of quinine to the patient, causes the disappearance of the Hematozoariæ from the blood, only when it cures the disease, and in this case, it makes them disappear two days after commencing the doses; on the intermediate day immovable forms are seen, which are almost always of an irregular shape.

The Hematozoariæ can live a long time blood, multiplying only slightly and without making their presence manifest. Their ordinary course is to make themselves manifest in such cases by destroying Hemacias; this is the mechanism of the true palustic anæmia, which presents itself without any access of fever.

This Anæmia is the immediate cause of Neuralgia, which therefore immediately depends on the action of the parasites. It is probable that they act directly or by means of their secretions on the nervous system, and thus favor the production of the neuralgic form of Larval Paludism.

When a person, whose blood is known or supposed to contain Hematozoariæ, is about to suffer the action that ordinarily brings about the access, he can avoid it by taking, two days previously, the dose of quinine that in that locality prevents the access. This is an important fact for the application of Hydrotherapy in the cure of Palustic Anæmia.

Contrary to what is stated by Burdel, I have not seen any Glycosuria after the accesses, even after administering 150 grams of syrup to the patients.

The quinine ought to be administered immediately after making the diagnosis. It is an error to believe that it should be administered any specific number of hours before the attack.

A New Serotherapeutic Process for the Treatment of Greek Leprosy.

Dr. Juan de D. Carrasquilla (Pan American Medical Congress, November 17th, 1896).

1. The leprous patient is bled, and the serum separated from the blood.

2. The serum of the leper, is injected into a horse.

3. The horse so prepared is bled, and the serum separated from the blood.

4. Patients are treated with hyperdermic injections of the horse serum.

5. A horse is injected with 30 cubic centimetres of human serum three times, at intervals of ten days. He is bled ten days after the last injection, and is injected afresh after the bleeding. He is bled twenty or thirty days after and so on successively.

6. The patient receives a hypodermic injection, of one to five cubic centimetres every third day, or at longer intervals if any reaction should set in.

7. The injection produces a normal reaction, chill, fever, perspiration or accidental myalsias, neuralgias, cutaneous eruptions, asphyxia, vertigo. etc.

8. The lesions which are characteristic of the disease, are at the same time modified; the tubercles are smoothed down and eliminated by absorption, supuration or scaling; the spots lose their color or disappear; the ulcers are healed up; the sensibility becomes normal; the lost senses are recovered and the general condition becomes satisfactory.

9. No medicine is administered against the reactions, unless it is lemonade to calm the thirst, and aromatic drinks.

10. The body is washed every day with warm water containing a solution of permanganate of potash, soda or lime, at one or two per thousand. The ulcerations are dressed with that same solution, aseptic cotton and a bandage to cover the whole.

11. There are no special requirements as to diet.

12. The injection is not administered when the pulse is accelerated, the temperature is above the normal, or any other symptom of reaction is shown.

13. The horny ulcers in the feet are treated with salicylic acid, in colodion. Those in the nasal and pharyngeal mucous membranes are treated with solutions

of borate of soda. The conjunctivitis, with sulphate of copper in a weak solution.

Thoughts on Antitoxin.

Antitoxin has now been employed in the treatment of diphtheria less than three years, its introduction in this field having been made February 1, 1894. This date is destined to rank very high in the list of important dates in medical science. It marks the time when diphtheria antitoxin was promoted from the realms of the purely experimental to the wards of disease and to the human system—from the laboratory to the Hospital Enfants de Malades in the City of Paris.

Great discoveries have ever marked the strides of human progress. Columbus discovered America—that is, he stumbled upon it while searching for a new route to the East Indies. Isaac Newton discovered the law of gravitation—that is, with pencil and paper and a superior mathematic ability he figured out its existence and its vast importance in the economy of a mighty system of worlds. Jenner discovered the immunizing value of vaccine inoculations, that is, his keen observation detected a potency in cowpox, which, while he could not understand its nature, nor its action, he dared to champion in the face of a sneering world. It was not his lot to live to see his discovery widely adopted, but his posterity have long since witnessed nation vying with nation for the honor of giving him nativity, while the Centennial anniversary recently celebrated to his honor could be merited only by one of earth's greatest benefactors.

Behring discovered Antitoxin—that is, finding a co-related major and minor premise unimpeachably established he resorted to logic for his conclusion or discovery—Antitoxin. Antitoxin is a child of pure science and is born of logic. It differs from the average of discoveries in that it is the correct answer to a scientific problem worked out with mathematical accuracy. In this lies the secret of the marvelous rise of Antitoxin into popular favor. Introduced less than three years ago, yet already millions of injections of Antitoxin, immunizing and curative, have been made. Every portion of the civilized world has heartily volunteered to help swell the reports of cases treated by it.

It is this accuracy by which Behring reached Nature's own and ancient remedy from the onslaught of Klebs-Loeffler bacillus that insured the prompt reception on the part of the medical profession afforded this newest and most unique of the thousands of additions made in recent years to our already long list of remedial agents. Behring's conclusions bear the stamp of logic, while his claims are clearly and accurately defined. All this inspires confidence. Clearness of vision on the part of its founder and confidence on the side of the physician have done all to place Antitoxin in this brief space upon the plane of eminence which vaccine inoculations, without these, struggled sorely for half a century to reach.

In no remedy ever advanced for the treatment of disease are the results more marked and the effects more constant than in Antitoxin. The claims established in the laboratory and ticketed upon it when it was enlisted in the service of man are still made and realized today. They have not been abridged nor supplemented. The prudent physician knows these claims and makes no other for the antitoxin he uses, neither does he lay to its charge effects it is powerless in itself to produce.

Its effects are strictly limited to the *Bacillus Diphtheriæ* and its toxins. As these are favorably acted upon, the symptoms following in their trail are promptly ameliorated. Deposited by the needle into the cellular tissue of the victim of typical diphtheria, the antitoxin readily goes to bathe every cell of the body. Thus it neutralizes the depressant toxins in the system, the effect of which is to cool the fever and calm the heart. It invades the home of the bacilli carrying with it death and expulsion. The result of this is that the false membrane loses its vitality. It is seen to grow pale while gradually it is detached and expectorated. It is here the physician can best observe the effects of antitoxin and always finds the highest source of gratification from its use.

That antitoxin has its enemies is not to be marveled at. It would be more surprising were it otherwise. The enemies of antitoxin, ninety per cent. of them, are physicians who have never used it, while the remaining ten per cent. have, to say the least, never used a reliable preparation. What was ever advanced of true

value that met no opposition? It was not aseptic surgery, the clinical thermometer, the hypodermic needle, anæsthesia or vaccination. These still find opponents and probably always will.

That the injection of Antitoxin in so large a number of instances should have been followed in a few cases by fatal results, due apparently to the antitoxin used, should not startle us. In view of our experience with the use of the hypodermic needle for other purposes than the injection of antitoxin, or with the use of anæsthetics, or in anything in life aside from the barest of routine, would it not be passing strange were it otherwise? Who rises to abrogate the use of anæsthetics simply because fatal cases are recorded? Fatal results have followed the eating of an ordinary meal, yet nobody would abolish dining. Not even Dr. Tanner was entirely willing for that. Instances are recorded in which grief rose to a sudden fatal issue on the date of burial yet funerals are not prohibited.

But we must not outrun ourselves. Antitoxin as applied to the prevention and treatment of diphtheria has already prohibited thousands of funerals. It is specific in this dread malady and is here to stay.

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Carcinoma of the Stomach.

The Vienna correspondent of the London Lancet calls attention to a very interesting case reported by Dr. Hammerschlag, wherein he calls attention to the fact that serious derangements in the function of the stomach may be brought about by histological changes in its mucous membrane. In the contents of a carcinomatous stomach collected one hour after a test breakfast there may be found abundant lactic acid and numerous long bacilli, but there is no free hydrochloric acid and there is an absence or diminution of the albumin digesting principles. Moreover, the peristaltic action is interfered with, and though there may be no pyloric stenosis the food is no longer kept in motion. Dr. Hammerslag has observed forty-two cases: he classifies them according as pyloric stenosis is present or absent, and in the next place according as secretion is entirely arrested or only diminished. The last group is

characterized by its symptoms and may be divided into those cases in which the predominant features are respectively either pain or dyspepsia. In twenty-seven out of the forty-two cases there were grave disturbances, and there were only four cases in which secretion was normal. The absence of hydrochloric acid is of no diagnostic value; pepsine was diminished in two-thirds of the cases, a symptom which does not in any way characterize carcinoma, for it may also occur in atrophy of the mucous membrane and in chronic catarrh. According to Dr. Hammerschlag the increased formation of lactic acid is of great importance and is produced by peculiar bacilli which are to be found only in gastric juice containing lactic acid and which possess the faculty of producing lactic acid from sugar and maltose. No doubt these organisms occur normally in the digestive track, but they produce lactic acid only if their development is promoted by perverted chemical action. Some authors believe the lactic acid fermentation to be due to the absence or diminished supply of the free hydrochloric acid and also to the contents of the stomach not being sufficiently kept in motion, but Dr. Hammerschlag has seen cases where, in spite of the existence of the above conditions, there was no lactic acid fermentation and the albumin digestion was normal. He, therefore, believed the ferments of the stomach to be of great importance in the lactic acid fermentation and considered that there were three predisposing causes—viz., absence or diminished formation of free hydrochloric acid, decrease of the ferment, and insufficient peristaltic action. Of these symptoms, the first which occurs is the decrease of hydrochloric acid, then that of pepsine, and finally the increase of lactic acid; but in cases of carcinoma originating from a gastric ulcer the chemical action may be normal to the last. Histological examination of the mucous membrane in cases of lactic acid formation shows atrophy of the glandular elements which are supplied with cylindrical epithelium.

Lipoma.

Lipomata have considerable surgical interest owing to the enormous size which

they may reach, and to the difficulty of diagnosing their nature before operation. They may be subdivided clinically into certain varieties. (1) Those which remain confined to the subperitoneal space, such as the retro-peritoneal, mesenteric, omental, and parametric growths, which nearly all originate retroperitoneally; (2) those which escape through weak points in the parietes, forming fatty hernias, and (3) those which grow into the peritoneal cavity like the normal appendices epiploicæ.

The retroperitoneal, mesenteric, omental, and parametric lipomata are amongst the most remarkable of the structurally innocent growths. They occur in adults of both sexes, but are about twice as frequent in women as in men. They are more or less encapsuled in some cases, while in others they appear to consist of a diffuse hypertrophy of the subperitoneal fat. Their connective tissue element may be scanty, or in considerable proportion (fibrolipoma). They are prone to myxomatous degeneration, and in rare cases may be associated with sarcoma. They are usually single, occasionally multiple, and may assume colossal dimensions. Pick records a case in which the growths weighed nearly 30 pounds. Homans removed two tumours weighing respectively $25\frac{3}{4}$ and 24 pounds, besides others of smaller size, and in Lennander's case the weight reached 33 pounds (15 kilogrammes). Their rate of growth is very variable, sometimes extending over many years, at others extremely rapid, and in the latter case may induce the most extreme signs of perverted or rather of diverted nutrition. In Pick's case the history extended only over six months, and as the tumour grew the patient, a man aged 36, assuming the aspect of cancerous cachexia, emaciated with extreme rapidity, and subsequently died of exhaustion. The tumours begin in most cases in the retroperitoneal tissue of the loin and iliac fossa, more commonly on the right side, and in their growths press forwards the peritoneum and insinuate themselves between the layers of the mesentery, mesocolon, omentum, or broad ligament, displacing the viscera and tending to compress the great vessels. Their diagnosis has been unsuccessful, rather because of the rarity of the condition than from any intrinsic difficulty. Only one

case was recognized before operation, by Terrier, who had met with the condition once before. In the others the nature of the disease was revealed under the knife of the surgeon or in the *post mortem* room.

The operation for their removal is necessarily dangerous when the tumours are allowed to attain a large size. Excision has, nevertheless, been successful in the hands of Magdelung, Pean, Meredith, Lauwers, Treves, Brüntzel, and Lennander, but in Magdelung's case it was necessary to resect the colon; in Lennander's, which extended into the mesentery and lay in front of the intestine, the transverse colon became gangrenous, the patient recovering with an artificial anus; and Brüntzel's, excision of a fibrolipoma weighing $37\frac{1}{2}$ pounds, was followed by a faecal fistula. In Treves's case, in which the tumour extended into the broad ligament; and was of relatively small size (72 ounces), the encapsulation was fairly complete and the enucleation easy, but it was necessary to cut off the ovary and Fallopian tube, which were stretched over the growth. In most of the cases, however, the lipoma has been found so intimately related to the viscera and great vessels that the operation has become one of extreme danger. In seven cases it has been fatal, mostly from shock, but in two from intractable diarrhæa, possibly set up by nutritive disturbance in the portion of the intestinal canal interfered with during the removal of the growth.

The results in the future will no doubt be less discouraging, because surgical intervention will be called for at an earlier period and because surgical antisepsis is yearly becoming more thorough. It is doubtful, however, whether in the diffuse forms the good result of excision will always be permanent.

Urine in Yellow Fever.

Drs. E. Acosta and J. M. Davalos, read a paper with this title at the Second Pan American Medical Congress, Nov. 17th, 1896.

From the year 1887 when the bacteriological Laboratory was founded in Havana, the new science of the immortal Pasteur has opened a new horizon to the

medical profession in Cuba. Numerous experimental labors demonstrated that it had been perfectly comprehended, and it was not long before most of the infectious diseases had been studied.

Amongst these, Yellow Fever is the one that has most engaged the attention of scientific men because it is the one that carries off most victims, and which presents the greatest resistance to the prosperity and wealth of the island of Cuba.

The authors of this paper have for a long time dedicated special attention to the study of this disease, and now have undertaken that of the Urine of Yellow Fever patients.

They have studied the toxic power of the Urine, and carried out more than 100 experiments on rabbits. From these they have been able to infer:

1st. That the urine of Yellow Fever patients contains toxines which are separated by the diseased system, and which perhaps pertain to the agent that produces the disease.

2nd. That the toxic power of these urines reveals the actual condition of the patient, so much so that the toxic power is in inverse ratio to the gravity of the disease. This is explained by the fact that when there is less toxine in the patient's system, he improves because the evil principle is carried off by the urine, whilst on the other hand, when the urine is not toxic, the patient accumulates the toxine and increases the gravity of the disease.

3rd. That the Urea has nothing whatever to do with the prognostic of Yellow Fever, as the labors of Bouchard have so demonstrated it with respect to different diseases, and as has been privately proved by the authors of this paper with respect to Yellow Fever. From the analysis of urines that have been made, they have proved that serious cases eliminated a good deal of urea, whilst others of less importance, stored it up in great quantities within the system.

They have by experiments proved the fact, that rabbits which were inoculated with urine charged with urea, delayed longer in dying through an intravenous injection than others which were injected with urine containing little urea.

The authors show that Yellow Fever patients die through poisoning by means

of the toxins of the germ which produces the disease, and *never from Uremia.*

Glanders in Havana.

Drs. J. M. Davalos and E. Acosta, of Havana, Cuba (Pan American Medical Congress).

The complaint called Glanders exists in Havana from the year 1862, when it appears to have been imported by an American horse. Since that date the germ has been propagated amongst the equine race, and its transmission to Mankind immediately followed, as is proved by the cases which were observed shortly after the original importation.

Since 1872, numerous cases of Glanders have been observed, and if for a time this disease did not appear in the mortality table, the fact is due to its being at that time clinically unknown.

Ever since 1887 a determined campaign has been undertaken against this disease. The authors of this paper demonstrated its existence, confirmed the labors of European Scientists, showed the germ, cultivated it and proved that a diagnosis by means of a bacteriological examination is the best means of discovering the origin of the evil.

Careful studies were made as to the scientific measures necessary to prevent its propagation and spread, and the causes that maintained the infection in an epidemic form amongst animals were clearly shown, as well as its easy and frequent transmission to the human species. In this work, the authors give full details of the above particulars, and also make a complete study of Glanders in the horse, mule, ass and in the human species. They dedicate a chapter to the symptomatology, another to the diagnostic, the prognostic and the treatment. The bacteriological study is accorded special importance by the authors, and they discuss it as fully as possible.

Lastly, taking advantage of the new horizon that the modern works on Serotherapy have opened up to medical science, they have thought out the treatment for this disease in Mankind, by means of an anti-glanders serum.

For this purpose they have selected as the animal best adapted through its natural immunity from Glanders, the calf and with Mallein prepared by themselves,

they commenced to strengthen its immunity, a condition they obtained to a satisfactory degree.

The experiments thus carried out place the authors in a position to assert that the serum gives immunity, and a case of chronic Farcy, lately treated with this serum, gave such happy results as to induce hopes of great progress in this study.

As yet no opportunity has presented itself of experimenting on a case of acute Farcy, but should it not at first be found to give good results, a greater degree of immunity in the calf would soon give positive results.

There can be no doubt that Glanders can be efficaciously combated by means of Serotherapy, and the authors of this paper will have the satisfaction of being the first to obtain from the calf a serum which gives immunity against this disease.

Syphilitic Aspect of Infantile Paralysis.

Dr. W. L. Baum (Chicago Academy of Medicine, Oct. 15th, 1896) said :

The syphilographer is not frequently called upon to see cases of infantile paralysis. When it is considered that between 75 and 80 per cent. of the children suffering from hereditary syphilis are born dead, or die before the end of the third month, we can readily see how few cases of hereditary syphilis there are in comparison with the supposed number. The lesions of the nervous system in these cases differ but slightly from those in the acquired type, and many of the so called pathognomonic signs of syphilis are not, strictly speaking, syphilitic manifestations, but symptoms of a dyscrasie which may differ widely from syphilis. The specific lesions most frequently met with in infantile paralysis are most often confined to the cortical substance and meninges of the brain. However, occasionally there are lesions occurring in the bony capsule which indirectly affect the nervous manifestations, and then the lesions also found in the medulla and cord. The specific disease itself gives rise to congested conditions which are subsequently followed by atheromatous conditions of the cerebral arteries. These are frequently followed by the development of smaller thrombi or military aneurysms. The formation of these thrombi or aneurysms

especially the rupture of the latter, gives rise to various paralyses which are met with in children. In those cases which are due to the formation of a thrombus the paralysis is gradual in its onset. Where it is due to a rupture of a small miliary aneurysm, the paralysis is more sudden. In both classes we have excellent results from treatment—rapid resorption and retrogressive changes to the normal. In the cases, however, where there is a true sclerosis, also accompanied at times with the formation of a thrombus or rupture of a miliary aneurysm, there is softening and a true destruction of the nerve tissues. These cases show no improvement from treatment.

The general practitioners and syphilographers are frequently misled into an erroneous diagnosis of the syphilitic origin of infantile paralysis upon the strength of the results obtained by therapeutic measures. It is too frequently forgotten that iodids and mercurials are of great benefit in a great many diseases of non-specific character, and when these individuals recover as a result of the administration of these anti-syphilitic remedies a diagnosis of syphilitic disease is made. This is certainly a mistake, for if there are no other corroborative evidence of a syphilitic disease present, we are not justified in calling the symptoms, which may have a widely divergent origin, syphilitic.

Fournier has reported a number of cases of syphilitic paralysis. in one of which there was enlargement of the lumbar vertebra, followed by paralysis of both legs. This condition subsided rapidly upon the internal administration of anti-syphilitic remedies. While syphilis as an etiologic factor in infantile paralysis occupies an important place, care should be taken not to put too much reliance upon such a diagnosis without more apparent corroborative evidences of the disease being present.

Guaiacum in Treatment of Chronic Gouty Affections.

The name guaiacum was given to the resin of a tree called *guaiacum officinale*, the wood of which was termed *lignum vitæ*. Dr. A. B. Garrod (The Lancet, Nov., 1896), speaking of numerous obser-

vations carried on for very many years among both hospital and private patients with guaiacum, both in the form of a powder and as ammoniated tincture of guaiacum, thought he had been successful in establishing the following points in regard to the action of guaiacum: (1) Guaiacum is innocuous, and may be taken for an indefinite period of time, and looked upon as a condiment rather than a drug—as harmless as ginger or any other condiment. (2) Guaiacum possesses a considerable power (but less than colchicum) in directly relieving patients suffering from gouty inflammation of any part; it may be given whenever there is but little fever. (3) Guaiacum taken in the intervals of gouty attacks has a considerable power of averting their recurrence; in fact, it is a very powerful prophylactic. (4) Guaiacum does not appear to lose its prophylactic power by long continued use. (5) There are a few persons who cannot readily continue the use of guaiacum; for such cases there are other drugs whose action as prophylactics is in some respects similar; perhaps serpentry is one of the most powerful of these. The author gave a short account of serpentry and mentioned the fact that he had given it successfully in gouty inflammation in the elderly subject: as a prophylactic he had less personal experience, but he did not doubt that it was possessed of considerable power. Before attempting to explain the mode of action of guaiacum in the treatment of gout, he gave his view of the origin of uric acid in the animal economy; instead of supposing that it was formed in the system by the metabolism of the nitrogenized tissues, and then thrown out by the kidneys, he was of opinion that it was produced from urea and other nitrogenized bodies in the blood by the direct action of the kidney, and that when uric acid was contained in the blood, this arose from the absorption from the kidney structures of the urate of ammonium, depending on the want of sufficient throwing off powers from these tissues. The author was aware that it was from his own discovery of uric acid in the blood that the opposite view of the formation of uric acid arose. To explain the prophylactic action of guaiacum the author did not think that it affected the formation of uric acid, but that it acted directly on the kidney itself

as a stimulant, and enabled it to get rid of any accumulation in the tubules, and thus prevented absorption from them into the blood. In confirmation of this view, it was found that patients, when taking guaiacum, often had unusual deposits of urates in their urine.

Autumnal Fevers of the Southern Atlantic States and their Treatment.*

Forms of Autumnal fever—intermittent fever or ague; remittent and pernicious congestive. The remittent is subdivided into the acute with sudden onset without premonition, by chill followed by acute active sthenic form of fever, temperature ranging from 103° to 105° , followed by remission. In this from the curves of temperature are angular, extreme, sudden.

In this prolonged form there are certain premonitory signs lasting several days, as lassitude, neuralgic pains in head, back and limbs, loss of appetite, constipation. These are followed by a slight rise of fever in evening and remission towards morning. The curves of temperature in this form are slight, gentle moderate. They never rise high and during remission fall to the normal or near that point. The first week of fever they rarely rise higher than 102° . The second week to 103° , the third week to 104° and fourth week to 105° .

This is the form usually mistaken for typhoid fever.

Ethiology. The Autumnal fevers of the Southern States are almost invariably of malarial origin. Occasionally there are cases of true typhoid. But the epidemic fevers in nineteen out of twenty cases are malarial parasite are discussed in this paper, as water and air. Evidences are now greatly in favor of the belief that water is the principal means of the introduction of the parasite into the system.

Action of the plasmodium malariae on the blood in its relation to the phenomena of fever.

Seasons of prevalence of autumnal fevers of the South from early in August to middle of October. Effects of frost on their prevalence. Antagonism of frost to malaria. Symptoms of malarial

fever. Rhythmic features of the disease. Differentiation between the symptoms of prolonged malarial fever and typhoid.

Pernicious congestive fever, its onset, symptoms, morbid phenomena and course.

Prophylaxis. The prophylactics discussed are the purification of water, deep and surface water, artesian wells, sterilized water, filtered water, sterilization and filtration of water combined. The prophylactic powers of quinine and chin-chona.

Treatment of intermittent or fever and ague, of remittent acute and prolonged, of pernicious congestive fever.

Quinine will ever be the chief and only reliable antidote to the malarial parasite. The important question in its administration is the manner of giving the remedy.

The Physical Chemical Character of the Urine in Yellow Fever.

Dr. Manuel Ruiz Casabó, (Pan American Medical Congress).

Seeing that the urine of Yellow Fever has been very little studied by the students of this infection up to the present date, the author has dedicated a special attention to the comparative study of the elements of this secretion with regard to other diseases.

He has had opportunities of giving his services in a numerous clinic of Yellow Fever patients and at the same time, of utilizing the resources at his disposal as Professor of the Bacteriological Laboratory in charge of the Section of Urology.

This work will be divided into different parts, with the object of studying in one the general character of the urine, and in the others the normal elements, that specially pertain to Urea, whilst a third part will determine the value that the abnormal elements may have for the clinics, giving curious and important facts with respect to some of these elements.

And lastly, the Statistics of the numerous cases observed, given with all details, will furnish clinical inferences, seeing that the author proposes to establish an intimate connection between the individual patient and his urine, so that the data can be fully appreciated.

*Dr. Bedford Brown's abstract of a paper read before the Second Pan American Medical Congress, Nov. 16, '96.

Treatment of Enteric Fever by Cold Tub Baths.

Dr. G. T. Thompson before the New York Academy of Medicine Oct., 20th 1896, read a paper with this title. He said that the usual method of carrying out the tubbing treatment was to immerse the patient in a bath of a temperature of 70° F. whenever the patient had a rectal temperature of 102.5° F. or over. The bath lasted about fifteen minutes, and during this time ice-cloths were applied to the head. On removal from the tub, the patient is wrapped up in a sheet, covered with a blanket, and, after having received a cup of hot milk or beef tea, is allowed to rest for some time in perfect quiet. It was advisable to give half an ounce of whiskey before the bath. At the end of three hours, if the temperature had again reached 102.5° F., the bath was repeated. Great stress should be laid upon the importance of rubbing, which is to be done by two nurses. One attendant should rub the chest, while the other rubs the back and arms. Where the body surface was quite hairy, it was better to have the hair cut short, otherwise the rubbing was apt to cause inflammation of the hair follicles. The rubbing improves the circulation, diminishes the shivering, and makes the time pass more pleasantly for the patient. Shivering is the patient's chief complaint, and this is much lessened by taking the whiskey twenty or thirty minutes before the bath. If given immediately before, absorption does not take place sufficiently quick to do good. The back should be first rubbed, and if the rubbing is not begun in the bath at once, the patient is liable to suffer from shivering. The temperature of the water is usually elevated 1° during the bath.

Of all fevers, said the author, enteric fever was characterized especially by depression of the nervous system. The cold bath reduces the temperature, improves the circulation, and arouses the nervous system to activity. The latter was the most important action of the bath, as well as shown by the fact that in some cases the temperature was lowered only a trifle, and yet the nervous condition of the patient showed marked improvement. The average reduction of temperature by a single bath was from

two to three degrees Fahrenheit. Comparison with cold spronging showed a difference of one degree and a half in favor of the tub bath. It should be remembered that this treatment did not cut short the disease, combat the toxins or prevent relapses to any great extent, but it did keep the patient in a much better general condition. The author then exhibited a temperature chart of one case, which was remarkable because of the exceedingly high temperature—higher than he had ever observed in a case free from complications. The temperature for twenty-four hours or more remained at 108° F., or over, except for a short time after each bath. This patient had altogether 139 baths. The most interesting feature of this case was that in spite of the marked hyperpyrexia there was much less nervous depression than was ordinarily observed with such high fever. He thought it was quite safe to resume the baths after an attack of intestinal hemorrhage as soon as the patient had had one normal stool. He had never seen any harm from this method of treatment being continued in women during menstruation.

Regarding the mortality rate, the speaker said that great caution must be exercised in drawing any conclusions from a few hundred cases of typhoid fever treated by any special method. Osler he said had recently reported on the cases of typhoid fever treated by the Brandt method at the Johns Hopkins Hospital, and stated that the lowest mortality there had been 7.1 per cent. Wilson also, he said published a series of 524 cases treated in the German Hospital of Philadelphia, up to January 1, 1896, in which the death rate was 7.26 per cent. A series of 63 cases of typhoid fever recently treated at the Presbyterian Hospital, of this city, by tub baths, yielded a mortality of 7.75 per cent. The objection had been made to this method of treatment that it was barbarous. It was true that the cold bath was not pleasant, but a patient very soon become accustomed to it, and quickly recognized the tonic effect. On more than one occasion patients had asked for these baths. The shivering might last for fifteen minutes after the bath, but it could be controlled usually by rubbing and hot drinks, or could be prevented by reducing the duration of the bath. Some

patients shivered a good deal with the first few baths, and afterwards became quite tolerant of them. The objection had also been made that the cold bath would cause the blood to be driven inward to the viscera, rendering hemorrhages more likely to occur, but facts did not support this theoretical objection. If the rubbing were properly carried out, it was evident by the appearance of the cutaneous surface that the peripheral circulation was kept active. In ordinary cases, from fifteen to twenty-five baths were required. The treatment had been objected to also on the ground of expense. He had estimated that the baths that he had received while sick with enteric fever had cost about \$2.50. His conclusions were as follows: (1) Cold tub-bathing does not ordinarily shorten the duration of enteric fever; (2) it does not prevent the occurrence of relapses; (3) it does not prevent the occurrence of many of the ordinary complications, most of which are less severe, however than by other methods; (4) it does not preclude the simultaneous use of any other recognized method of treatment; (5) it may be safely employed in all cases except those actually having at the time severe intestinal hemorrhage or pneumonia, not even early pregnancy or menstruation being a contra-indication; (6) it is a rational method because of its action in stimulating the nervous system, and because it regulates the metabolic processes of the body and increases the vital resistance; and (7) when begun in the first week here is almost a certain prospect of the disease running a much milder course, and in severe cases the mortality is reduced approximately one-half.

Biological Characteristics of the Blood in Yellow Fever.

Dr. Tomas Vicente Coronada, of Havana. (Pan American Medical Congress Nov. 16, 1896.)

I. Having been for many years accustomed to practice careful examinations of the blood in order to arrive at a clinical diagnosis of Paludism, and having later on carried out some comparative studies between the blood of Paludic patients and healthy people, I determined to take the first opportunity to extend these studies

to the blood of persons attacked by Yellow Fever.

The sudden entry within a short period of time of more than 150,000 men who were not acclimated and who came from the Mother country for the purpose of fulfilling their military duties, gives new strength and greatly disseminates the yellow germ from one end of the Island to the other, and the succession of cases, both in Europeans as well as native born Cubans, who had not obtained immunity through a previous attack of this terrible scourge which prevents all immigration, afforded me a vast field within which to carry on my studies of Hematology.

The technique for collecting the blood and preserving it in good condition for study, is very simple and similar to that which I have employed with my Paludic patients

A finger of the hand in a thorough clean aseptic condition, is pricked with a common needle or with a lancet which has been passed through a flame of alcohol. The blood is collected in small glass vessels which are made for that purpose with a blow pipe so as to leave them with a long sharp neck, which can be broken with the nail and closed after filling, with the flame of a match. The blood having been collected in this manner, it can be preserved in good condition for one or many days.

The examination in a natural condition, can be made by emptying a part of the blood on a glass slide; and then putting this on the slide carrier so as to proceed to the examination. The permanent preparations must be made by the method of double colorations with Eosine and Methylene blue; once the blood is spread on the slide in a very thin coat making a mixture in equal parts of absolute alcohol and ether to be afterwards washed and dried and then mounted in Balsam of Canada.

II. Both in those serious cases of Yellow Fever infection, when a fatal result has taken place a few hours after the extraction of the blood, as well as in the commoner mild cases and a very large number of observations, the investigations have given surprising negative results.

In fact, it has surprised me to find that blood of the Yellow Fever patient, which has been taken one or two hours before

his death, as well as that which I have drawn when the disease was much less advanced and also during convalescence, should present all the features of a normal blood, that is to say similar to that of a healthy and robust man, full of life and without any pathological stain.

It is therefore evident that the blood is not the seat of disturbance, either deep or slight, in that terrible infection which is called Black Vomit, and which in not a few cases, carries off its victim with the same violence as the Cholera Morbus, or poisoning by vegetable or mineral substances.

A clinical direct observation, clearly shows the normal red globules increased in number, whilst in connection with these we perceive numerous white and iridescent leucocytes, full of phagocistic life.

These facts, which appear extremely singular, I firmly believe will shortly carry us to the solution of problems connected with the Pathology first, and afterwards with the Etiology of Yellow Fever.

Even now, I can advance, that thanks to my simple hematological investigations on the endemia of Yellow Fever, I have been able to demonstrate in a decisive manner, that the Cubans or natives suffer, like Europeans, from legitimate Yellow Fever, whenever they have not obtained immunity through a previous attack.

Serotherapy in Erysipelas.

Drs. Rijo and Y. Calvo, of Havana, Cuba. (Pan American Medical Congress Nov. 16, 1896.

The labors executed by the Pasteur School have furnished medicine in general with great resources with which to overcome most of the infectious diseases. Erysipelas, as well as the other Streptococcal infections, has received the benefits of Serotherapy.

On the 23rd of April, 1895, M. Marmortet presented in the Biological Society, a paper on this serum, whilst almost at the same time, Drs. Roger and Charrin, reported the results obtained with the serum that they had prepared.

Taking advantage of the circumstance that we formed part of the body of Professors in the Bacteriological Laboratory

of the Cronica Medico-Quirurgica, of Havana, we have been the first to employ the anti-streptococcal serum, prepared by Drs. Davulo and Acosta, in a case of Ectenular Erysipelas.

The result was very satisfactory, as within 48 hours the patient found himself from a disease that had resisted all treatment, and we could feel certain of the efficacy of the serum.

In spite of having employed 60 cubic centimetres, we did not observe any of the phenomena of a general reaction.

The Flectunæ were broken up within 24 hours, and were completely dried.

Dr. Gustavo Lopez, afterwards treated an individual in the Insane Asylum who was attacked with Erysipelas in the scalp and obtained favorable results.

We will in due time report on this observation, as well as on that of Dr. Acosta, with reference to a young woman leper who suffered periodical attacks of Erysipelas in the legs, and whose infectious eruptions were treated with injections of the same serum.

We will likewise present all information as to the results of the new cases that may be observed by our colleague Dr. Garcia Rija and ourselves.

Neuritis of the Pneumogastries.

Dr. H. L. Browne (The Lancet, Nov., 1896.). In the beginning of November, 1893, J. H., aged 52, a man who had frequently been subject to attacks of gout, began to be sick after his meals, and to complain of gastric pain and discomfort after taking any kind of food. The sickness became frequent, and the flatulence and discomfort so marked and prolonged that he soon was unable to leave his bed. None of the ordinary remedies relieved him, and the most careful dieting had little effect in diminishing the sickness. There was extreme superficial tenderness over the epigastric region, but no tumor could be felt. He then began to have attacks of coughing—incessant, long continued, and most distressing. At intervals he had attacks of laryngeal spasm, which caused choking and much difficulty in inspiration. His heart action, which had throughout been rapid, became extremely so, and then he had attacks of heart failure, with a tendency to faintness, and the pulse became irregular, intermit-

tent, and very feeble. On December 27, heart failure and tendency to syncope were so marked that he constantly required subcutaneous injections of ether or inhalations of nitrate of amyl. The sickness had continued.

The case being then supposed to be hopeless, and probably one of malignant disease of the pylorus, all other treatment was given up, and he was kept well under the influence of opium, which up to that time had not been pushed, but only used in small doses. The sickness ceased. By slow degrees he recovered his strength and was able to take food, and by the beginning of March was able to go out and resume his business. Two other cases presenting much the same symptoms had previously been noted in patients who frequently had gout. During the influenza epidemics of 1893, 1894, and 1895, other cases, also markedly similar, were observed by myself and Dr. Plummer. In some, the gastric symptoms predominated; in others, the laryngeal (not only laryngismus and extremely violent and prolonged fits of coughing were noticed—some had true expiratory asthma). In all, the heart's action was rapid and there was tendency to faintness and prostration. Opium seemed to be the only efficacious remedy. Strychnine was injurious at any stage of the disease. In all cases there was prolonged illness and tendency to relapse. Restricting the amount of fluids to 30 or 40 ounces a day seemed to relieve the gastric discomfort. Stimulants were used sparingly and carefully. From the various symptoms described, one may fairly infer that the lesion present was a neuritis of the pneumo-gastric, but whether of one or both nerves, one cannot say. Marked tenderness on pressure was noted in some of the cases over the course of the nerve in the neck.

Aural Herpes.

Dr. Lewis S. Somers, of Philadelphia, in the American Medico Surgical Bulletin, reports an interesting case of that rare affection, aural herpes. The eruption is analogous to herpes zoster but is rarely seen on the auricle. The disease is characterized by a peculiar neuralgic pain preceeding the appearance of the

typical vesicular eruption by several days. This pain may be localized over the seat of the after coming vesicles, or may be so severe as to radiate up the side of the face or follow the course of the nerve ramifications down the neck. Constitutional symptoms are more or less marked and the temperature is increased, but usually falls to or near normal on the appearance of the eruption. The eruption consists of groups of clear vesicles situated on a reddish base, and contain when newly formed, clear serum, which later in the course of the affection may become turbid or purulent. The vesicles are situated in groups which may coalesce and form bullæ if the disease is of much severity. The case illustrative of the disease was as follows:

Male, age 16 years. Complained of an eruption at the orifice of the external auditory canal. One week previous to this after exposure to cold, he had an attack of acute coryza, with considerable bodily prostration, fever and a peculiar burning, stinging pain in the right ear. Questioning elicited the further information that he had had no previous aural trouble and had never suffered from "cold sores" the common name for herpes labialis. The neuralgic pain continued for three or four days, when an eruption made its appearance on the ear. Dr. Sommers then saw the case, and on examining the affected ear found from twelve to fourteen small vesicles, filled with a turbid fluid, at the junction of the auricle with the external auditory canal. At this time the constitutional disturbance had disappeared except the pain, which was still present although lessening. Under the use of laxatives and a local application of the yellow oxide of mercury in lanolin to the affected region, the subjective symptoms quickly disappeared and the vesicular eruption faded away.

Yellow Fever and Paludism---Their Clinical Hematology.*

Nothing is easier than to make diagnostic of the continual forms under which Paludism or Remittent Fever of long duration present themselves, if we proceed by means of a methodical clinical examination of the blood, thereby proving the presence of the Hematozoria of

Laveran or the modifications that they cause in the white globules.

The characteristics that separate them from Fellow Fever and Typhoid Fevers, dolinenterics can be determined almost exactly, and I say almost, because in cases of Yellow Fever, I have very often been able to prove, in one case by a Post Mortem, that the Paludic infection can be developed at the same time as the Yellow Fever germ, without the clinical observation of the being symptoms sufficient to detect the presence of the paludic poison.

To-day, thanks to the recent labors of Widal, confirmed and repeated in the Laboratory of the Medical Clinic in Havana, by my colleague Juan M. Davalos, the difficulties are disappearing, as with the help of the diagnostic serum which now forms a new branch of Hematology enriching the modern clinic, we are able to separate the dolinenteric Typhoid, at its commencement from Yellow Fever, separating the Paludic fevers and Yellow Fever from the Typhoid symptoms.

A methodical clinical examination of the blood of our fever patients has proved in an indisputable manner, that the three infections can be combined two by two in the same patient, and without being able to appreciate its influence in a visible manner in the clinic, the fact of its development in the same subject, has been experimentally demonstrated.

A paludic patient may contract the infection of Yellow Fever, of a mild or grave character, just the same as any other person who has never suffered any infection. A Yellow Fever patient may also acquire the paludic infection.

In the same manner, a paludic patient may acquire the Ebertion, giving rise to one of those types that are clinically known under the name of malarial Typhus, and which we must not accept as a pathological entity, but as simple association in the same subject, of the Eberthbaccillus, and the Hemazotoriæ of Laveran, the first being a known microbe already classified, and the second a gragarine, Coccidian or simply hemazotoriæ, which is not yet classified.

The Technique for the examination of the blood, with a view to forming a

diagnostic or separating the idea of Paludism, as well as the employment of the diagnostic serum, are most valuable resources in clinics and through the facility and rapidly of their application, they open a most valuable horizon to practical medicine in those countries which render tribute to the grand Pyrexia.

Hypodemo Clysis in Severe Railway Injuries Requiring Multiple Amputation.*

Wounds inflicted by railways are always serious, inasmuch as the various tissues involved, are usually irreparably injured and require removal. It is difficult to form a correct idea of the extent of the injury as the external appearance of the wounded part does not always indicate the loss of vitality it has sustained, and the damage to the tissues is only revealed afterwards by more or less extensive sloughing which takes place in them. Sometimes in the examination of a limb, more especially when the bones are but slightly injured, only a trivial wound may be seen, yet the cellular and muscular tissues beneath the skin may be injured beyond the possibility of repair, and free hemorrhage be taking place from their torn and lacerated vessels. Considerable shock always accompanies these injuries, and when attended by hemorrhage the depression of the vital forces is often so profound, that the condition becomes one of exceeding gravity. If the injuries are multiple and of a character so serious as to require an operation for their repair, or removal, the condition is much intensified, and correspondingly greater difficulties must be encountered in our efforts to preserve life. To save life under these circumstances requires prompt and decisive action on the part of the surgeon, and there is nothing which occurs in practice more difficult to determine than the right course to pursue in an emergency of this kind. The victim of one of these railway accidents is brought to the surgeon in a state almost moribund, with cold extremities, a weak, small and rapid pulse, almost imperceptible to the touch; restless, covered

*Abstract of a paper read before the second Pan American Medical Congress by Dr. T. V. Coronado, Nov. 19, '96.

*Abstract of papers read before Southern Surgical and Gynecological Association at Nashville by Dr. Jas. Evans, Florence, S. C.

with clammy perspiration, and with sigh respiration and in a condition of semi-unconsciousness. Formally it was a difficult matter to decide what course to pursue in regard to patients in this condition. The combined effect of the anaesthetic, and the shock which would follow an operation of any description added to the existing profound depression of the heart and nervous system, would almost inevitably prove fatal, yet to defer it, death would certainly take place from the more or less hemorrhage that was continually sapping the patient's strength. Usually when operations were performed under such circumstances, a fatal result followed. Now, however, a very different termination of these cases can confidently be anticipated by a timely resort to Hypodermoclysis. There are cases where the hemorrhage has been so excessive that the system drained of the minimum amount of blood compatible with life the only remedy that offers the slightest prospect of preserving life is the speedy and direct transfusion of the blood of another person or an animal, into the veins of the sufferer. But in the great majority of instances which come under our notice in practice, the transfusion of normal, warm saline solution into the sub-cutaneous cellular tissues answers every purpose and is attended with the happiest result in saving life while it is free from many dangers inseparable from the use of the former. Another advantage it possesses the materials for its preparation are always available and can be easily obtained in almost every locality, and be prepared in a few minutes. It is not necessary to weigh the salt or take the temperature of the water, all that is requisite is to put a teaspoonful of salt into a pint of warm water, as hot as well can be born by the hands when immersed in it. There is some choice to be made in the selection of the spot for the injection, and for some reasons, the left side of the chest, in the sub-axillary space is preferable to any other, as it is near the heart, and the injections acts as a powerful revulsive and counter-irritant to the organ, increasing rapidly the force and volume of the pulse, causing deeper respiration and restoring sooner than when injected elsewhere, warmth and color to the surface of the body. The injection should be given either for the relief of

shock or hemorrhage as it will relieve the one and stanch the other, preventing further loss of blood. As soon as reaction occurs give the anaesthetic and proceed with the operation if one is necessary and continue the injection from time to time until it is concluded, if there is any faltering of pulse. As much as 40 ounces or more may occasionally be used with advantage. As yet, the mode of action of the injection of hot saline solutions on the economy has not been studied with the care and industry such an important subject deserves, and we are not in a position to form an opinion of the metabolic changes wrought in the cells of the body which enables them to afford such speedy relief to nervous shock and hemorrhagic depression. Sir George Johnson attributed the stage of collapse in Asiatic Cholera to the contraction of the cells of the lungs caused by the specific poison of that disease circulating in the blood, and it may be that the semi-conscious state, the weak heart and shallow respiration are due to a poison generated by deficient metabolic action caused by shock and a deficient blood supply, and that the relief afforded by hot saline solution is owing to the restoration to the circulation of a normal quantity of fluid, and also the dilution of the poison circulating in it.

Any one who has witnessed the marvelous effects of the sub-cutaneous transfusion of warm saline solution in the relief of the collapse from shock and excessive hemorrhage can no longer doubt that it is incomparably the best remedy ever suggested for this condition, and that it has been instrumental in rescuing many from impending death that otherwise would have perished. Soon it will be required of every Physician who accompanies an emergency ambulance in our large cities to be provided with the necessary appliances for the administration of this simple remedy in the event it becomes necessary. It should likewise form a very essential part of the armamentarium of the military surgeon, and the men under his charge in the rear of the line of battle who renders "first aid" to the wounded should be taught when and how to use this remedy and be provided with some simple contrivance for administering it. Each one could be provided with a small alcohol lamp, a

few feet of rubber tubing with a large size hypodermic needle and in an emergency, even an ordinary canteen could easily be improvised for us. It is pleasant to contemplate how many lives of the wounded will be saved in future wars by this simple and effective remedy who in the past were left on the field of battle to die without assistance.

The clinical history of a few cases were then given in illustration of the prompt relief to the distressing efforts of shock and hemorrhage afforded by this remedy.

The Feeding of Young Infants During the First Year.

About one-fifth of all deaths in New York City, says the American Therapist, occur before the end of the first year of life. The most frequent cause of this early infantile mortality is due to gastrointestinal disease. Three-quarters of all deaths from such complaints under two years are met with before the termination of the first year.

Why do we have such an appalling death-rate from one cause alone? Simply because of the ignorance prevalent in regard to the proper method of feeding these young infants. There is really no perfect substitute for mother's milk. It very rarely happens that an infant brought up exclusively on breast-milk dies of disturbances of the digestive tract. It is the effort to add extraneous articles or their complete substitution which gives rise to these troubles.

Immature children are the most difficult to feed. "The *"couveuse"* or *"incubator,"* or *"brooder"* has done good work in retaining the body-heat of these weaklings. Still they usually succumb from inappropriate nourishment in spite of the most zealous care. These babies have not the power to nurse, and hence the impossibility of putting them to the breast. Recourse must then be had to diluted preparations of cow's milk given through special feeders shaped like medicines-droppers.

For children normal at birth but deprived of mother's milk, the first and best substitute will always be the milk of a healthy wet-nurse. For various reasons this is not always practicable, and then we are driven to artificial substitutes.

Mixed cow's milk gives us the next best choice. A chemical examination of the mother's milk at the time of bottling the baby will suggest the proper composition of the substituted milk. Or a study of the average composition of milk at the various nursing periods in large numbers of nursing women will give a fairly reliable standard for all practical purposes. These ends are now achieved in New York and Boston by the establishment of the Gordon-Walker laboratories, devised and sustained by their able projector, Dr. Rotch, of Boston. The chief objection to milk thus prepared—so-called *"modified milk"*—is the cost, which makes it inapproachable to the largest proportion of cases which occur amongst the poor.

We must then, as a rule, fall back upon good cow's milk, boiled in winter or sterilized in summer, and diluted according to the age of the child with the different cereals—oatmeal, rice, or barley-water. These latter are given according as the bowels tend respectively toward constipation or diarrhea. At the age of seven or eight months soups or meat-juice may be added. Cornstarch in milk, or a soft boiled egg, makes a pleasant semi-solid food for such children. A zwieback or crust of white-bread may be put in the baby's hand about this time.

Although the process of dentition is actively going on at this period, it must be remembered that seldom does it cause disturbances. It is always a good rule to first examine into the baby's dietary before examining the gums.

In times of emergency, when the milk supply to a large city is cut off—as during severe snow-blockades in winter—condensed milk will be of service. The degree of condensation varying among the different specimens, and the proportions of sugar being unstable, it will be well, as a rule, to rather select freshly obtained cow's milk.

The artificial foods rank last on the list of desirable foods for such young infants. No two preparations are exactly alike. The addition of foreign substances, such as malt, etc., deviates from the natural mother's milk, and the fact that these foods are often kept for long periods in the shops does not free them from the suspicion of having begun to undergo chemical decomposition at the time they are prepared for the baby's stomach.

"The Treatment of Some Forms of Albuminuria by Reni-Puncture."

Dr. Reginald Harrison in his presidential address before the Medical Society of London Oct. 12, 1896, said that certain cases of albuminuria had come under his notice in which he had performed an operation for the relief of some morbid condition which was supposed to exist but was not found when the kidney was exposed; the symptoms however were relieved and the condition of the urine improved. This had led him to think that in certain cases of albuminuria good might result from puncture of the kidney. He related three cases in which he had so exposed the kidney:—1. A boy aged eighteen years was suspected of having suppuration around the kidney following scarlet fever. There was lumbar pain, and the urine was albuminous and contained casts. A small lumbar incision was made and the kidney found to be tense and engorged. An incision was made through the capsule, and there was a full discharge of blood and urine; the wound healed on the tenth day. The urine now becomes abundant, the albumin lessened, and then disappeared altogether, the boy making a good recovery. 2. That of a man aged fifty years who worked underground. He had presented symptoms of a renal calculus for some time. Three months after being first seen his urine was constantly albuminous, and he had pain in the right lumbar region. The kidney was exposed, but no stone was found. The condition of the patient improved, the urine became normal, and the patient remained in good health. 3. That of a woman aged forty-four years who had had hæmaturia for one year pain on pressure over the left kidney, with albuminous urine at times. There was some history of her having passed a calculus at one time. A lumbar incision was made and the kidney was found to be swollen and tense. This was incised and free drainage of urine and blood ensued. The woman recovered, the urine becoming normal. The first of these cases he considered to be scarlatinal nephritis, the second to be due to cold, and the third a subacute attack following influenza. He then referred to two cases of movable kidney published by Dr. Newman of Glasgow in which the albumin and casts

which was present before the operation disappeared entirely after the kidney was fixed, and also to another case under the care of Dr. Hoeber of Hamburg, in which relief had followed incision into the right kidney. Having referred to the views of Sir Thomas Grainger Stewart and Sir Thomas Watson on the consequence of hyperæmia in the initial stage of nephritis, he went on to point out the disastrous effects which increased tension produced in such organs as the eye and the testicle and the relief which resulted in these cases from operative interference. As both kidneys were usually similarly affected it might be urged that both organs would have have to be submitted to the same treatment. This did not necessarily follow, as the sympathy existing between the two organs was such that impression exercised on the one usually afforded relief the other, as shown by his cases. In order to illustrate this point he narrated the case of a man aged thirty years who had received an injury to the loins and subsequently passed a small quantity of blood in the urine. The patient had considerable pain and tenderness over the right loin, which was discoloured. The right kidney was exposed and some extravasated blood was removed. A small trocar was thrust into the kidney in three places and a small incision made through the capsule. The secretion of urine, which before the operation had been scanty, increased to more than double in the forty-four hours succeeding the operation. All the symptoms were relieved and the patient made a good recovery. Mr. Harrison then narrated the case of a girl aged seven years who died four days after the onset of scarlet fever, with almost complete suppression of urine. The kidneys were found congested to such a degree that it was not surprising that they were unable to secrete. It was in such cases as these and in certain cases of chronic albuminuria following scarlet fever that he thought operative interference could be advantageously practised. With regard to the operation an incision in the loin of moderate size should be made, so that the operator could explore the kidney with the finger. The kidney should be punctured with a needle and possibly the capsule should be incised, and the wound should be packed with gauze so

as to provide free escape for blood and urine.

The Neuron.

Aloepius Kelly (at the meeting of the Philadelphia County Medical Society, November 25th, 1896):

Until within comparatively recent years the generally adopted conception of the nervous system was that its essential tissue was made up of two distinct morphologic elements, nerve cells and nerve fibres. The nerve cells were supposed to originate, send, receive, and modify impulses. These were conveyed from one nerve cell to another by the nerve fibres, acting as conducting agents and serving to connect nerve cell with nerve cell. This transmission of impulses presupposed continuity of structure. We now know, however, that the nervous system is not made up of a number of nerve cells, maintained in continuity by nerve fibers, but that it is composed of a number of distinct and independent neurologic units, called *neurons*. Each neuron originates as a unit, structurally, independent of every other neuron, and as such it remains despite its subsequent morphologic complexity. The essential part of each neuron are the *nerve cell* (in a restricted sense), the *axon* (axis cylinder process), and the terminals of the axon—the *end tufts*.

The nerve cells are of various shapes, and have received appellation in conformity therewith. The axon is a differentiated process of the cell body. It may preserve its individuality, and proceed as the axis cylinder of a nerve fibre, or it may immediately break up into numerous fine filaments. The axon always terminates in a free extremity—the *end tufts* or *end bushes*. Further, there proceeds from the cell body other processes known as *dendrons* or *dendrites*, and from the axon processes known as *collaterals*. On the dendrites there are fine hair like projections called *lateral buds* or *gemmule*; and at the branching of the dendrites, thickenings known as *varicosities*.

It is of a multitude of such neurons that the nervous system is made up. Each neuron is always structurally unconnected with any other neuron. The relation which one bears to another is simply that of propinquity, or possibly contact.

Without doubt the most important part of the neuron is the nerve cell with the dendrites, being the nutritional, trophic, receptive, and impulsive elements. The dendrites are parts of the cell body proper, being split up portions of its periphery. They resemble the cell body in structure and in function. The nerve cell has been aptly termed the vital part of the neuron. The axons, collaterals, and end tufts, outgrowths of the cell body proper, are of secondary importance. The conduct and deliver impulses to neighboring regions. The processes of the neuron are as it were, projections of the cell body into the various motor and sensory regions of the body. Thus, without regard to its topographic situation, there is no one part of the nervous system that is not in direct association with every other part. There is no one part that functionates absolutely independently of every other part. The theory of the motility of the neuron aptly explains certain hysterical, hypnotic, and other functional states (sleep), and may also serve to account for certain morbid manifestations, the nature of which we do not understand (tachycardia).

Various so-called system diseases of the nervous system are now known to be due to disease of neurons functionally allied—a system of neurons. We can now understand the occurrence of peripheral neuritis, and we can more than theorise concerning the anatomic basis of various mental diseases.

A Contribution to the Surgery of the Female Perineum,*

The author has fault to find with most of the operations recommended for so-called perineal laceration. An exception to this being that of Emmet.

There are two objections to the old operation. First the removal of normal mucous membrane; and, secondly, the opposite, namely, leaving in the vagina a large amount of cicatricial tissue (the flap-splitting operation of Tait). The author strongly recommends a close study of the recent laceration and nature's method of cicatrization. This will teach that the lacerations are most frequently to the left

*Abstract by Dr. Edward J. Ill—Second Pan American Medical Congress.

of the median line and extend far up into the vagina.

It will be furthermore learned that sub-mucous laceration are frequent and mostly so on the right of the median line.

This results in producing deep sulci to both sides of the posterior median line of the vagina, really magnifying the normal sulcus.

We will furthermore see that as soon as the vagina is severed its circular fibres retract the mucous membrane outward, thus forming a barrier to the union of the deep tissue, even if that tissue had not already retracted. Furthermore, that the laceration is often bilateral in the vagina and of the Y form. The forked portion of the Y is often separated from the underlying tissue.

The laceration of the external portion of the perineum is simply a laceration of the skin.

When these same cases are examined some months later it will often be difficult to find the scars. Close observation of the healing process will teach one when to look for the scars. From these observations the writer draws the following conclusions:

That in the primary operation it is necessary to raise the torn and retracted flaps, thus laying bare the severed ends of the perineal structure. The elevated vaginal flaps are united first, and then the deep perineal structures. *For the successful performance of the secondary operation it now becomes necessary to reduce the condition of the parts after healing to that in which they are found immediately after the accident.* All that is necessary is to remove the cicatricial tissue, whenever found, raise the retracted and adherent vaginal flaps, and proceed as if the laceration was a recent one.

For further information as to the proper introduction of sutures the reader is referred to the original paper.

Eucalyptus Globulus in Strichnine Poisoning.

Moufrida Musmeci, in studying the action of eucalyptus, found that a decoction of the leaves and a solution of salt of strychnine formed a flocculent precipitate of a clear colour, while there remained above a solution of a citron-

characteristic bitter taste. On this account the author raised the question as to whether the strychnine lost its topic action, and if in consequence eucalyptus could be used as an antidote. For this purpose he carried out a series of experiments on frogs, rabbits, and dogs, to ascertain, first, what symptoms would be produced by giving these two drugs together; secondly, what antidotal power eucalyptus would exert on being administered after the development of the symptoms of strychnine poisoning. The author found that a solution of nitrate or strychnine, 1 per cent., when injected with a Pravay syringe, would kill a frog in eight to ten minutes after a dose of 0.001 gr., while a dog was killed in thirty-nine minutes by a dose of 0.001 gr. per kilo. of its weight. After a decoction of eucalyptus was administered at the same time, the animal survived the same dose used for the control experiment, and even became tolerant of a dose equal to 1½ m. per kilo. In other experiments eucalyptus was administered after convulsions had appeared, and then these became less marked, and even disappeared. From these experiments the author believes that eucalyptus has a true antidotal action in strychnine poisoning, and recommends that practical application should be made of it by using a decoction for washing out the stomach in such cases.

A Case of Puerperal Eclampsia Without Renal Symptoms. Blood-Letting Recovery.

Dr. John R. Gibson in the London Lancet Oct. 24, 1896 reports the following case which is of unusual interest. He says on Nov. 26th, 1895, I was hurriedly called to see a young married woman, aged nineteen years, who had suddenly been seized with a convulsive fit. I found the woman lying on the floor in a tonic convulsion, and a dead fetus lying between her legs and under the clothes. The child was born during the convulsion, the patient's mother, in whose house she was, being unaware of the child's presence. I at once separated the fetus and put the woman to bed, and as soon as I could procure it I administered chlorform by inhalation. During a

spasm the placenta was shot out of the uterus with some force. The administration of the chloroform did not afford any relief, the tonic spasms remaining very severe and long, lasting nearly a minute, and being succeeded by clonic spasms of the usual type of not more than two minutes' duration. As death seemed imminent from suffocation I proceeded to augment the chloroform inhalation by the introduction of a warm solution of one drachm of choral hydrate per rectum. I continued the chloroform inhalation for half an hour longer, pushing it until the breathing became stertorous, but with the exception of making the tonic intervals shorter very little effect was produced. At this stage I asked for, and obtained, liberty from the patient's friends to bleed her. I immediately did so in the usual way from the median basilic vein to the amount of twelve ounces. Shortly after this was done the tonic spasms grew shorter and less severe, so that about six hours after the blood-letting the convulsions had almost ceased and the patient was semi-conscious. Next morning the patient was quite conscious and made an uninterrupted recovery. She gave the following history. Up to the day she became unwell she had been fairly well during her pregnancy with the exception of morning sickness during the earlier months. She had no swelling of the face or legs so far as she had noticed and the urine was of the same amount. On the day of her illness she had walked from her own house to her mother's (about a mile) and shortly after she arrived her mother noticed she had a fixed look, and later twitchings of the mouth; without warning she then fell to the floor in a convulsion and became unconscious, and this is the condition in which I found her. She did not suffer during her pregnancy from cephalalgia, abnormal vision, or epigastric pain. I examined the feet and body generally for œdema, but could find none. I also drew off, on the evening of her illness, some urine from the bladder by the catheter which had a specific gravity of 1020, was of a straw color, and contained a trace only of albumin, it being barely perceptible with the cold nitric acid method. The fœtus was fresh and death appeared to have been recent.

This case throws some light upon the pathology of eclampsia and favouring the view that the cause of the disease is a poison circulating in the blood irrespectively of the kidneys.

Case of Acute Ascending Myelitis Complicating Measles.

Dr. W. A. Ellison in the London Medical Lancet Oct. 17, 1896 reports the case of a schoolboy aged fourteen years, of nervous and somewhat morbid temperament, was attacked with measles on March 39th, having been during the day in school and, presumably, in his usual health. Next day the rash came well out over his body, and during the succeeding night he had a sharp attack of diarrhœa and vomiting, which subsided next morning, April 1st. The patient exhibited all the usual signs of a well-marked typical case of measles; the temperature had been up to 104° F., but fell below this during the day. On the 2nd the symptoms declined; the boy reported himself as feeling comfortable except for pain in his back, and chatted with his parents. The evening temperature was 98°. On the 3rd the temperature was normal. The patient informed his mother that he had passed no urine since the previous evening, and though this did not seem a very unusual or remarkable circumstance he was evidently troubled in his mind about it; later in the day he complained of vague pain about his body and legs and declared his conviction that he was going to have influenza; in the afternoon the urine was still retained the bladder was by no means distended. In the evening a dose of castor oil was given in the hope that the urine might be passed when the bowels acted; the oil did its duty in due course but little or no urine was passed; and 11 p. m. a catheter was used and about a half a pint of urine was drawn off. The boy bore the catheterisation with what appeared extraordinary equanimity and afterwards said he was fairly comfortable, but had "sort of influenza pains" in his toes and legs. The temperature was 103.4°. The patient spent a restless night, and on the 4th at 7:30 a. m. he was found to have complete paraplegia with absolute anæsthesia from his toes up to his axillæ, where there was very slight sensation. Thoracic move-

ment was much impaired, the superficial reflexes about the thorax and the abdomen were very slight, and the reflexes of the lower extremities were entirely absent. The temperature was 103.4° but 11:30 a. m. it had risen to 104.3° and the patient was drowsy and complained of pain in the hands and the forearms, and the grasp of both hands was decidedly weak. The catheter was passed. At 2 p. m. the temperature was over 105° and motions had been clasped unconsciously. At 5 p. m. he was drowsy but conscious; his speech was not effected; the temperature fell slightly, but at 8 p. m. it had risen to 107° and the patient was almost unconscious. There was absolutely no movement of the thorax; they numbered 46 and coma had supervened. At 2 a. m. on the 5th the respirations were 50, the temperature was 107.5° , and the patient was still able to swallow. At 5:20 a. m. the temperature taken immediately after death was 109.2° .

Serious Heart Lesions Without Well-Marked Continuous Physical Signs.

In an exhaustive paper with the title "Serious Heart Lesions Without Well-Marked Continuous Physical Signs" recently read before the American Climatological Association Dr. Henry E. Elsner has called attention to many cases of cardiac disease in which marked physical signs are for a long time absent or only occasionally present. In many of the conditions cited where organic disease was present, physical signs were either changed from time to time or there was temporary or permanent disappearance of marked murmurs. He calls attention to the great importance of understanding *for every purpose, in all heart diseases*, the true condition of the heart muscle and of determining with equal accuracy the degree of its functional activity. This knowledge, the writer holds cannot always be gained from a consideration of physical signs alone, for these may vary, or may be entirely absent where advanced disease exists. His conclusions were reached after clinical observation and post mortem examination of many diseases of the heart and the arterial system. He goes fully into the history of an interesting case which finally ended

fatally from angina pectoris with specific disease of the coronaries and degeneration of myocardium, in which there was a long period, during which the physical signs were a transitory character, dilatation of the ventricles disappearing after prolonged rest, increasing after meals when exercising. The anginous attacks were supposed by many to be of the pseudo-anginous character. The writer holds that in the majority of cases angina pectoris with myocardial degeneration occurring in young subjects, the disease is very likely to be of syphilitic origin or heredity plays an important role in its causation.

Alcoholic myocarditis is referred to by the writer. These are physical signs which are not persistent but materially influenced by exercise and treatment. The subject of permanent and transitory dilatation and hypertrophy of the heart following severe strain, undue muscular exertion and prolonged worry is fully considered. The writer holds that in the majority of cases where the damage was permanent the heart was not normal before the strain unless the strain was continuous or the patient had labored under it for a considerable period. He cites abundant authorities to corroborate his views. He speaks of the importance of differentiating for diagnostic and therapeutic purposes between auricular and ventricular dilation and degeneration, and gives clinical and pathologic data making such diagnostic possible. He has found the degeneration of the ventricles associated as a rule with a regular, but as the process advances, an increasingly feeble pulse. With auricular disease there is more likely to be marked irregularity of the heart and the prognosis of this lesion is much less grave than that of ventricular degeneration. Mention is also made of essential proxysmal tachycardia and the subject is discussed from a clinical standpoint. Finally those cases are considered in which murmurs become inaudible or only occasionally audible. A bibliography accompanies the paper.

Origin of Fat in the Body.

In the London Lancet, Oct. 24th, '96, the subject of the origin of fat is discussed. Many years have now elapsed

since the well-known French chemists, MM. Dumas and Boussingault, as the outcome of their researches, maintained that animals, whether herbivorous or carnivorous, were supplied with all their proximate principles by the vegetable kingdom—the former class directly, the latter indirectly through the herbivora on which they preyed. Animals, according to these observers, did not make fat, sugar, or albumin, but derived each and all of these substances from plants. This position was contested by Liebig, who contended in regard to fat that this was not altogether obtained by animals from the fat of their food. On the contrary, they were able to make it with either sugar or starch. He pointed out, as Huber had done before him, that bees fed on sugar or honey alone were capable of forming fat in the form of wax, but Huber had omitted to weigh the bees before dieting them, and Dumas and Boussingault ingeniously argued that the waxed formed on a diet of pure farina or sugar was originally stored up in the bodies of the bees and utilised by them in the construction of their combs. Liebig therefore still supported the view of Huber and held that the greater part of the fat which is deposited in the animal body and that which is found in the milk of nourishing mothers is formed in the body and almost exclusively from the hydrocarbonaceous compounds of the food. The albuminoids, he thought, played quite a subordinate *role* from this point of view, as, indeed, seemed probable when it was considered that the food of the herbivora which store up much fat is chiefly composed of carbohydrates, whilst the bodies of the carnivora, whose food is chiefly albuminous, contain little or no fat. Moreover, he experimented on a goose, which from a lean condition was fattened to such an extent that three pounds of fat were obtained from it, although the maze with which it had been fed did not contain anything like that quantity of fat. Dumas and Boussingault returned to the charge by making a careful analysis of the food given to a cow for a year and determining the quantity of fat which the animal yielded in the milk. They found the fat introduced with the food to be considerably in excess of that eliminated by the milk, but Liebig scored a point by observing that nearly all the

fat ingested with the food escaped undigested from the bowels in the fæces. Subsequent experiments, especially those of Lawes and Gilbert, on the herbivora clearly demonstrated that one, at least, of the sources of fat is the farinaceous material ingested. In the meanwhile various circumstances had led some investigators to adopt the view that the albuminoid or nitrogenous constituents of the food might play a part in the generation of fat. Thus it was found that animals fattened best when their food, if chiefly farinaceous, was mingled with some albuminous compounds; whilst Pettenkofer and Voit demonstrated that in a dog freely supplied with flesh the whole of the nitrogen thus introduced into the economy was recoverable from the urine of fæces, whilst the carbon remained in the economy and hence, probably, formed or aided in the formation of fat. The observations of Kemmerich on nursing bitches, of Subbotin on feeding dogs with palm oil and meat, of Hofmann on larvæ fed on defibrinated blood containing a known quantity of fat, all pointed in the same direction and led Voit to maintain, first, that the fat of animals is exclusively formed from the proteid aliments, and secondly, that hydrocarbonaceous compounds are not converted into fat in the animal organism, but simply preserve the fat formed from the proteids from oxidation. The most recent researches on this point, however, are not quite in accordance with Voit's views. M. Kaufmann arrives at the following conclusions. The proteids, in common with the ternary compounds of the food, contribute to the formation of fat, but, contrary of Voit's statement, they are not the exclusive origin of it. When during digestion a large quantity of proteids in absorbed it rapidly undergoes disintegration and forms fat. This fat has, speaking generally, three applications. One part oxidises and passing through the phase of glyose supplies the requisite energy for the general physiological work of the organism; another part undergoes incomplete oxidation and is transformed into carbohydrate which is stored up in reserve as glycogen; whilst the third part remains intact and is deposited as fat. The proportion of fat which is fixed during the digestion period varies with the abundance of the repast

and the richness of the organism in glycogen it may happen that the whole of the non-oxidised fat may be converted into glycogen. Calorimetric investigations demonstrate that if the anaerobic decomposition of albumin really occurs the process is not attended with any disengagement of heat.

A Case of Chronic Pleurisy with Effusion Treated with Protonuclein.*

On June 2d of this year, a lady came into my office in a greatly disturbed state of mind, telling me that she had suffered from an attack of pleurisy since March 1st, and now she had been told that "it had turned into an abscess on the lung, and that she must go to the hospital (to her a place of torment) and have a tube put through her ribs," to say nothing of being "laid up" for six or eight weeks.

She was very thin, having lost ten pounds or more, and complained of severe pain at the base of her right lung, when she took more than a shallow inspiration. She also said that there was a sensation of fluid running in her chest when she brought it to a horizontal position. Her temperature was 100.5° F., and, to use her own expression, she felt "altogether miserable."

On examination there were evidence of adhesions at the base of the right lung, also indications of a small amount of fluid which I suspected would be pus. However, the exploring needle proved it to be of a serious nature, slightly cloudy, due to the presence of a few pus cells. The following treatment was outlined, and, I am happy to say, was faithfully executed:

Protonuclein tablets, three grains (Reed and Carnrick), half an hour before meals and bedtime, subsequently increased to five tablets *per diem*. Also ten minims of fluid extract of cascara at bedtime, to regulate the bowels, which were in a torpid condition. Besides this, the surface over the painful area was painted with iodine every second or third evening, as the condition of the skin permitted.

Her diet consisted of not less than half

a pound of lean beef or chops at two meals each day, with vegetables in limited quantities, to which was added half a pint of cream each day, to be consumed in a manner most agreeable to the patient.

The result of this treatment was, that the patient gained flesh at the rate of a pound a week and strength in accordance. The temperature became normal at the end of the second week, and deep inspiration gave no pain early in the third week. No trace of fluid could be found by the tenth day, while after eight weeks of treatment the patient declared that she never felt better in her life.

This case seems to me to be one which demonstrates the beneficial properties of Protonuclein, especially when combined with a nourishing diet. There can be no doubt that this case would have terminated in empyema, and that very shortly had active treatment been delayed; and I believe that many cases of pleurisy with an effusion which is not absorbed so rapidly as it ought to be, would be speedily cured by a treatment substantially the same as the one employed in the case.

Much time is practically wasted by some teachers of gynecology in the description of intricate operations, when it should be applied to a more thorough study of methods of relieving the ordinary troubles of women by less radical measures. The physician will see a hundred cases of backache and leucorrhœa as results of carrying a sick baby, or other forms of overwork, to one case demanding an abdominal section. If, by the minor methods in common use, he is able to relieve the hundred, the practitioner may well turn over the operative case, as he should do, to one who devotes himself largely to surgical gynecology.

We believe that, as a rule, leucorrhœa is not well treated, we make no apology for alluding to the treatment of so common an affection. Unless the vaginal be of intrauterine origin, we know of no other means so simple and yet so effectual as the use of Pulv. Antiseptic Comp., Tyree. It is every way preferable to all the usual remedies used, many of which stain and are otherwise objectionable.—*Massachusetts Medical Journal*.

*Alman H. Cooke, New York Medical Journal.

Pain and Rest in Diphtheria.

Rest is one of the sweetest words in our language, and in the management of no disease is this more true, than in diphtheria. In keeping with the experience of Prof. T. E. Murrell, Ex-Vice President of the American Medical Association, and Dr. Pollack, of St. Louis, who have found antikamnia valuable as a reliever of the pain of nocturnal earache, it has also been found of great value as a sleep producer in these cases. Given in doses of two and a half to five grains every two to four hours, there is no depression nor have other than satisfactory results obtained. Dr. Eggers, of Horton Place, St. Louis, reports in the treatment of an attack of diphtheria in a member of his own family, that, to obtund the pain consequent upon the injection of antitoxine-serum, which ordinarily lasts from three to four hours, he exhibited antikamnia internally, securing relief in a few minutes. In the treatment of any neuroses of the larynx, coughs, bronchial affections, lagrippe and its sequelæ, as well as chronic neuroses, clinical reports verify the value of codeine in combination with antikamnia, the therapeutical value of both being enhanced by combination.

Modern Treatment of Tuberculosis Including Specific and Organic Medication.*

The modern treatment of tuberculosis means that its therapy is founded on natural law. Recognizing the specific cause of the malady and the nature of the fields necessary for the development of its germs, it seeks to vitiate the soil and make it unfit food, and aim to antagonize these parasites in their physiologic elements.

THE SOIL.—The bacillus tuberculosis may develop in any human being in any of the organs, but a requisite for this development is proper nutrition and freedom from competent inimical forces. The germs of consumption reach, probably, the lungs of every human being in a large city, and yet only about a

sixth die of *pulmonary consumption* proper. It is obvious that nature protects those who escape, and nature accomplishes this great task in two ways: First, in affording to the germs and unfruitful soil for their rapid development; second, in opposing an army of scavengers—phagocytes and other defensive forces to microbic invaders. In this very plan of natural defence of the economy, we find the principles of organic therapy. It is, indeed, on the knowledge of the physiologic laws herein indicated and their relation to the tubercular pathologic developments that modern therapy of consumption rests forever.

Not discarding any of the logical measures employed daily in practice, and granting their value in a general way, the physician to-day seeks to strike at the very basis of pathogenic supply and attempts the destruction of the warring microbes, and this is accomplished by bringing into play the forces of nature calculated to exalt the physiological germicidal power resident within the organism of man, or create new ones, and allow the organization to clear the debris and strengthen and rebuild the weakened and partly ruined structures.

Now, as to specific remedies. First, I will mention tuberculine. This agent, under different names—antiphthisine, tsbercule cidin, etc?—is an agent which provokes the formation in the system of antitoxin, on the same principle that diphtheria germs and toxins growing in animal produce an antitoxin which may neutralize the activity of diphtheria poison. Tuberculin, then, when used in man's system, increased the amount of tubercle antitoxin, and to the extent that it does this, tuberculin is a useful agent. But, unfortunately, the extent and degree of the antitoxin product is too limited and has the great disadvantage of being produced in the body already suffering from poisons.

Precisely the same results are sought in the production of anti-tubercle serum. We use a horse instead of an already diseased human body. In this animal we introduce for months strong tuberculin, and then tox-albumin of dead bacilli, and then sometimes, in the veins, are living germs, and when, by this process, the blood of the horse is strongly anaggonistic to the germ of consumption and

*Extract of paper read before the session of the Medical Society of Virginia, Rockbridge Alum Springs, Va., September 9, 1896. By Paul Paquin, M. D., St. Louis, Mo.

its toxins, we filter it and use the serum obtained, by hypodermic injection, in man's system. We thus supply the human blood with antitoxin already prepared, at a degree of antitoxin power incomparably higher than can possibly be produced in a sick man, and without the least drain on his forces.

Up to date, September 1, 1896, we have received reports tabulated, more or less accurately, concerning 226 cases. We have reports touching on more than four times that number which are not written so as to be available to make an absolutely reliable digest of them at this date.

There are among them a number of improvements and some recoveries.

The details of conditions and results of the 226 cases are as follows, foreign classifications being employed to make comparisons of American and foreign work more intelligible:

	Number of cases.
Class 1. Destructive Bronchopneumonia and cavities	37
" 2. Destructive Bronchopneumonia without recognizable cavities....	66
" 3. Without diffuse Febrile Pneumonia with or without a destructive process.....	19
" 4. With diffuse Non-Febrile Bronchopneumonia with or without destructive cavities.....	19
" 5. With circumscribed Febrile Bronchopneumonia.....	35
" 6. With circumscribed Apyretic Bronchopneumonia.....	13
Diagnosis not reported clear enough for classification.....	32
Hip Joint Tuberculosis.....	2
Laryngeal Tuberculosis.....	2
Ovarian Tuberculosis.....	1
	226

In every one of these cases the diagnosis was verified microscopically. During the treatment of these 226 cases following results were obtained:

Effect of Serum on fever, subsided, 60; Reduced, 56; Stationery, 26; Not Recorded, 84.
Effect of Serum on Night Sweats, Subsided, 69; Unchanged, 17--140.

Result of Serum on Weight, Increased, 125; Unchanged, 15; Decreased, 27--59.

Result of Serum on Strength, Increased, 154; Unchanged, 9; Decreased, 24--39.

Result of Serum on Appetite, Increased, 114; Unchanged, 15; Decreased, 31--66.

Effect of Serum on Local Signs, Disappeared, 46; Mitigated, 58; Unchanged, 29--93.

Effect of Serum on Tubercle Bacilli Disappeared, 40; Reduced, 103; Altered, 7--76.

Effect of Serum on General Well Being, Exclusively of 40 cures, Improved, 145; Unchanged, 9--32.

Number of recoveries that seem complete and permanent.....	40
" " apparent recoveries with existing lesions in statu quo.....	3
" " improved, capable of performing usual duties.....	41
" " improved, to a lesser degree....	69
" " deaths reported.....	32
" " cases disappeared from observation or under various treatment	41
	229

As to the Pulmonary cases, the extent, stage and importance of the condition at the beginning of treatment were as follows:

In Class No. 1, 20 cases in advanced stage; 3 in early stage.

In Class No. 2, 33 cases in advanced stage; 6 in early stage.

In Class No. 3, 12 cases in advanced stage; 0 in early stage.

In Class No. 4, 9 cases in advanced stage; 0 in early stage.

In Class No. 5, 12 cases in advanced stage; 3 in early stage.

In Class No. 6, 7 cases in advanced stage; 1 in early stage.

Not classified accurately enough for satisfactory description of stage..... 115

These ranged between the 1st and 3rd stage and belonged to various classes.

Now, it is needless to add that many physicians who have used the serum have not reported. It should be remembered also that ninety-five per cent. of the patients who have so far consented to use the serum are in the third and last stages of the disease, and therefore, by no means fair tests of the value of the serum in earlier and purer cases of tuberculosis. Nothing can cure the vast majority of advanced cases. My own cases were treated exclusively with serum, and the reports above given cover only those of which I am reliably informed, and the diagnosis of which was reliable. It is obvious that if we would give tuberculous patients all the chances possible of recovery, we must begin their treatment at the earliest possible moment, when the first slight symptoms appear, instead of depending exclusively on drugs and climate until too late for the help of organic and specific treatment.

Resection of Stomach for Cancer; No Recurrence After Six Years.

Porges reports in the London Lancet a successful case of resection of the stomach performed by Maydl. The patient was a man, aged 57, of healthy family and personal history, who had

been suffering from loss of appetite and progressive wasting for more than a year; there were no subjective signs of gastric disease. A tumour, larger than a man's fist, could be seen in the region of the stomach, moving with respiration, and reaching from the middle line to the left costal cartilages. Carcinoma of the greater curvature was diagnosed, and at the operation the tumour was found to extend from the pyloric region to within three fingerbreaths of the cardia, and to have encircled the stomach, so that its greater part was converted into a rigid tube. The diseased portion and half an inch of healthy stomach on either side was cut away, and the duodenum united with all that remained of the organ—a strip of the cardiac end an inch and a quarter wide. The great and small omenta were tied piecemeal, and a few soft oblong glands removed from the former. The hinder part of the tumour had become fixed to the pancreas, the involved portion of which was accordingly removed. The peritoneum was sewn up, and the wound closed in layers. The operation lasted an hour and three quarters, and left the patient much collapsed. The portion of stomach removed measured $7\frac{1}{2}$ by 7 inches; the mucous membrane was intact, but in parts inflamed. The growth was found to have the microscopic characters of carcinoma. The patient made a perfect uninterrupted recovery, the temperature never rising above 99.1° . He was fed *per rectum* for five days; on the sixth he was given soup, milk, brandy, and tea, tolerating them all without pain or nausea. On this day he felt the sensation of hunger for the first time; on the twelfth day he was allowed a little hash; on the sixteenth he got up; and on the twenty-six he left the hospital well. Five months after the operation his bodily weight had increased by more than one-third (from $111\frac{1}{2}$ lbs. to $149\frac{1}{2}$ lbs.); he looked thoroughly healthy, and stated that he could eat and digest anything. Five years after the operation Porges saw him again, looking the picture of health and weighing 165 lbs; nothing abnormal could be palpated in the stomach region except a small, easily reducible hernia on the left side of the left side of the line of suture. A year later (August, 1896) he was still in perfect health. Among the noteworthy

features of the case was the small amount of stomach left after the operation; in dogs which have been kept alive after complete removal of the stomach it is found that the upper duodenum dilates and takes on the functions of that organ. Furthermore, the mode of growth of the tumour was peculiar, particularly in the gastric mucous membrane. The glands removed were unfortunately not examined, but did not appear to be carcinomatous. The limited spread of the disease was also remarkable, and was no doubt associated with the no less unusual absence of recurrence.

Tubercular Affections of the Skin in Australia.

Finch Noyes (International Journal of Australia) in a well-written paper remarks on the infrequency with which lupus and allied tubercular disease of the skin are encountered in Australia. He holds that certain pathological states are to the direct influence of the tubercle bacillus. Others occur in individuals with that peculiar vulnerability of tissue which favors the development of the bacillus, but which, so far as it is at present known, are not due to the direct influence of that organism. To the first belong lupus vulgaris, scrofuloderma, verruca necrogenica, acute tubercular ulceration, tubercular lymphangitis. To the second, erythema induratum, lichen scrofulosorum, acne scrofulosorum, tubercular eczema. Of these, among three thousand cases, he has only observed lupus vulgaris eleven times, scrofuloderma twice, verruca necrogenica thrice—one case in an ordinary labourer—and erythema induratum twice. He accounts for the infrequency of lupus vulgaris in Australia by—1. The greater exposure of its inhabitants to direct sunlight. 2. absence of tendency to hyperæmia and stagnation in exposed parts due to the effect of cold. This is probably the element which accounts for the greater activity activity of lupus during the cold winter months in England and Europe. 3. Increased tissue resistance. It is true that lupus is no respecter of persons so far as the rich and poor are concerned but it is also true that it assumes a much more severe type amongst the poor half-

starved, ill-nourished individuals so common in the larger cities of Europe and so rare in the cities of Australia.

Etiology of Eclampsia.*

There is not at the present time a satisfactory hypothesis in regard to eclampsia before the profession. None in which pathology and etiology correspond to clinical facts. None able to withstand the test of chemical and microscopic research. While each of the many theories seem to explain some cases, there remains a large number of cases not satisfactorily explained by any theory heretofore before the profession.

A review of a recent literature shows a general tendency to ascribe to some form of blood poison the principal etiological factor. An objective sign of eclampsia not mentioned in the text books is a peculiar sweetish odor to the breath due to acetone. Acetone is found in the blood of persons suffering from abnormal decomposition of carbohydrates, and indicate that it is the result of retrograde metamorphosis of organized bodies.

Certain facts of physiology and pathology of the liver and kidney must be kept in mind.

The kidney of pregnancy is large, pale, anæmic; the renal epithelium shows fatty degeneration; the urine contains albumen at certain times of the day; hyaline and granular casts. There is no evidence of inflammation present, so that albumen and certain casts must be considered physiological. The liver is enlarged from fatty degeneration of the cells which begins around the intra-tabular veins.

In eclamptic patients very marked changes in the liver occur, consisting of dilatation of capillaries, followed by necrotic points, and, in fact, it is part of the function of the liver to destroy or change poisonous substances and alkaloids. The portal vein brings to uterus, probably from the uterus septic and chemical substances. The pathological changes described prevent the liver from performing its eliminating and purifying powers. The nitrogenous part of the proteids is

eliminated as urea and allied bodies. The carbohydrate mostly appears in the form of biliary salts. The waste material from the fetus must also be eliminated by way of the mother—liver.

Clinical histories give us two large classes of cases.

1st. Those classed as uremic and accompanied by the usual symptoms of uremia.

2d. Those due to poison developed by retention of waste carbohydrate material from mother and fetus, and those products undergoing further decomposition and forming toxic products, convulsive poison and acetone.

Most physicians have the idea they have performed their whole duty when they have examined for albumen, casts, and solids. Against such an idea this article is a decided protest.

That eclampsia is primarily a kidney disease in all cases is not true, nor can it be prevented by attention to kidneys alone.

The poison originates partly or entirely in connection with the fetus. In no other way can we explain the cessation of convulsions after delivery, or death of fetus, even though retained in the uterus.

Cholagogue cathartics have a uniform good effect by relieving the portal circulation and the elimination of large quantities of poisonous malaria from the system.

Eclampsia occurring during or shortly after labor are due to the contractions of uterus, forcing the blood suddenly from uterine sinuses, which are loaded with tissue change in the fetus into the maternal circulation.

The nephritis coincident with eclampsia is mainly secondary analogous to the nephritis of scarlatina.

No examination of urine of pregnant women is complete without an examination for acetone, on account of its relation to carbohydrate tissue change.

A Lesson in Hemiplegia.

J. Lew Sutherland, M. D., First Vice-President, Nebraska State Medical Society, in a paper entitled "A Lesson in Hemiplegia," read before the Loup. Val. District Medical Society, said that no physician is justified in giving an unqualified prognosis that an hemiplegic will

*Abstract of a paper read at the recent meeting of the Second Pan American Medical Congress by Dr. J. A. Clark, Chicago, Ill., Professor of Gynecology, Harvey Medical College.

regain his former vigor and activity, even though the symptoms at the time of the attack are very mild, unless adult age has not yet been attained, or that traumatism has had to do in the etiology, and says: "For when the cause is purely idiopathic we can but concede that pathologic conditions have existed for some time, and if we would expect perfect restoration to the normal we must go further back in our treatment than to the time of the onset; in short we must repair or create anew the machinery which did such faulty work as to produce miliary anurism, develop embolism, or favor the formation of embole."

He reports and gives the clinical history of a case which is most typical of the vast majority occurring in private practice, and shows wherein cerebral hemorrhages and embolism may produce similar or almost identical first results, and that it is only by a process of reasoning by exclusion and striking a balance is one able to give a reason for his diagnosis. That when the symptoms are purely motor and affect the arm and leg of only one side the site of the lesion is in the cortical substance of the brain, and is limited in its extent to only a small area. But should the deeper structures be involved, including some of the basal ganglia, it would be manifest by much graver symptoms, such as disturbed speech and vision, muscular incoordination and even mental aberration, and should the lesion be in the left hemisphere there would be aphasia.

In considering the etiology he lays great stress upon depaired or perverted nutrition as prominent factors, at the same time recognizes a diathesis, and believes that prophylaxis instituted early enough would diminish the frequency of the occurrence of this distressing and disfiguring malady.

An Unusual Retroperitoneal Condition

In a paper, read before the Hospital Graduates Club of New York, on this subject, Dr. E. Eliot, Jr., described a rare form of gangrenous inflammation of the retroperitoneal space, occurring without apparent cause, and reported two cases, of this condition, that had been treated by him in the Presbyterian Hospital of that city.

In the course of his remarks he referred to the retroperitoneal space, as existing between the posterior wall of the peritoneum, and the transversalis fascia, so that any involvement of the fat, which it contained, might result from pathological conditions of any of the viscera which adjoined that space without the intervention of part of the peritoneum. It was, however, only to the primary condition above mentioned, that he desired to call attention.

The first case occurred in a woman, 33 years old, who, without any previous history, developed a tumor occupying the right ile-lumbar region, simulating a kidney, a gall-bladder, or an inflammation of the appendix, (accompanied by the rational symptoms of a suppurative process), when that organ is situated abnormally high up in the abdominal cavity. Owing to the uncertainty of diagnosis, an anterior incision was made, and a retroperitoneal abscess, supposed to be connected with the kidney of that side opened and drained. The patient subsequently died, and the autopsy revealed a sloughing cavity behind the peritoneum, and adjoining it, a sloughing condition of the wall of the third part of the duodenum; this latter organ had apparently become secondarily involved in the inflammatory process. The kidney on that side was normal in every way. The only symptoms pointing to the condition of the duodenum during the life of the patient were the existence of severe epigastric pain, and the presence of marked vomiting, the latter symptom having yielded, however, to ordinary measures. The immediate cause of death was probably the absorption of fetid products from the sloughing area, as there was no evidence of peritonitis.

The second case also occurred in a woman, aged 35, who was admitted into the hospital with every symptom pointing to a rapidly spreading peritonitic either of appendical or of tubal origin, of three days duration.

The abdominal cavity was opened and no pus was found; instead, the peritoneal cavity contained a large amount of clear serous fluid, which after bacteriological examination, revealed the presence of large numbers of bacilli coli communis. There was a sloughing condition of the retroperitoneal fat, which did not bleed

when the adherent appendix was separated from it. The appendix was otherwise normal. There were areas of fatty necrosis in the omental fat. There was no peritonitis.

After a course of twenty three days, in which the temperature curve resembled that of typhoid fever, the patient died from exhaustion and autopsy revealed the presence of large numbers of retro-peritoneal abscesses, pointing into the peritoneal cavity, without the presence of any primary lesion to account for their existence.

Conditions of that kind undoubtedly demand operation, which, although not always successful, yet undoubtedly prolongs the life of the patient.

The writer pointed out the difficulty of accurate diagnosis, and emphasized the fact that, in any case, on opening the peritoneum, the surgeon should be prepared to meet and treat any emergency.

Heredity of Graves' Disease.*

In a paper read before the American Climatological Association, Sept., 1888, on "The Effect of Climate on Graves' Disease," I suggested that the disease was primarily hereditary and that climate was often the exciting cause. In that paper 40 cases were reported that had occurred in 17 families, which seemingly proved that it was hereditary. I have continued my observations and will give you the result of my work, which will, I think, corroborate the truth of the assertion then made.

In the paper referred to I showed that environment seemed to have much to do with the development of Ex. G., and cases were cited of families who inherited the disease, in which one branch living in low land was free from the disease, another branch having its habitat in an elevated region was markedly affected.

I will give you all the cases, which seem to bear on this subject that I have, up to this time gathered in my search, including those published in the paper before referred to, together with some other causes which seem to influence its development.

*Abstract of a paper read before the second Pan American Congress by Dr. Curtin, of Philadelphia.

I am well satisfied that those that have a strong inherited predisposition are less amenable to treatment and are more apt to relapse or assume the chronic form. The prognosis in this case is serious, as sometimes occur, especially in the young. In fatal cases rarely takes place within a year.

The reason that this disease is, comparatively speaking rare, is that persons may have a strong tendency hereditarily, and yet escape owing to the fact that the requisite surroundings are not present at the age when the person is most susceptible, which in the female is about pubertad.

CONCLUSIONS.

- 1st. Graves' Disease is hereditary.
- 2d. The marriage of those having such predisposition should be discouraged.
- 3d. A person who is known to have the inheritance should not reside at an elevation of more than 500 feet.
- 4th. They should avoid great excitement or highly exciting occupations.
- 5th. They should not reside in a limestone region.
- 6th. It would be wiser not to select a home in a locality where the disease is common, no matter where the locality may be.
- 7th. They should be careful to avoid all those things that are likely to produce anæmia.
- 8th. They should avoid excessive study, any prolonged mental or sexual strain, or anything which may bring on a neurasthenic condition.

Polyp.

At a meeting of the Academy of Medicine of Cincinnati, held Oct. 12th, 1896, Dr. R. C. Hill reported an unusual case in which a polyp located in the splenic flexure of the colon had produced death. After reviewing the somewhat meagre literature relating to polypi high up within the alimentary canal, the doctor expressed the belief that these neoplasms were capable of exerting a more baneful influence upon the integrity of the intestinal tube than was commonly ascribed to them.

A few cases had been reported where obstruction was due to the size of the mass, a few more where, on account of

location, symptoms simulating those of stricture had been produced as in the œsophagus and at the pylorus, but with these exceptions, and the production of occasional hemorrhage, when situated in proximity to either extremity of the alimentary tract, there was a remarkable absence of symptoms by which these growths could be detected.

In his own case the patient, a female aged seven years, was brought into the hospital with symptoms of intestinal perforation following the administration of an enema under very slight hydrostatic pressure for the relief of an obstruction of a week's duration, and upon opening the abdomen only a large pus collection, occupying the recto-uterine cul-de-sac, was discovered which was mopped out and drained.

The condition of the patient, who was almost moribund before reaching the table, prohibited any but the most superficial search, which failed to discover any perforation, and the patient expired a few minutes after leaving the table. At the autopsy a firm substance was discovered within the splenic flexure, which was at first thought to be a foreign body, but upon removing and opening this portion of the intestine, was found to be the polyp which Dr. Hill presented to the Academy. The entire circumference of the bowel corresponding to the site of the tumor was the seat of inflammatory change involving all of its coats. A perforation had been established through the softened tissues by the force with which the enema had been thrown in.

Dr. Hill stated that so far as he was aware only one writer had described this form of obstruction, dependent upon inflammatory paralysis of the muscular coats of the bowel complicating intestinal polypi, while some very excellent observers were somewhat sceptical regarding the possibility of its occurrence, nevertheless, the light of this experience discovered one additional reason for early operative interference in every case of intestinal obstruction which remained unrelieved within a very few hours of its inception.

The possibility of this condition being encountered should be recognised, especially in dealing with ileus in children, and while the results of operative intervention should be good in this class of

cases everything depended upon its early institution.

Essential Paroxysmal Tachycardia.

Aloepius Kelly (at the meeting of the Philadelphia County Medical Society, October 14th, 1896,) read a paper on Essential Paroxysmal Tachycardia, reporting four cases. The age of the patients range from twenty-two to sixty years, and the affection has lasted in the individual cases from three to twelve years. The essential feature of each case is the paroxysmally recurring attacks of extraordinary rapidity of the heart's action, without adequate obvious cause, predisposing or exciting. The heart beat will suddenly increase from normal to two hundred or more per minute, and as suddenly fall again to normal. The paroxysms may last for from a few moments to three weeks or more, and are unattended by marked dyspnoea or cardiac pain.

Particular attention is directed to the fact that in none of the cases was it possible to detect any cardiac lesion whatever. There were present evidences of vasomotor instability, generally parietic in nature.

The various causes of symptomatic or reflex tachycardia are cited. These are excluded. and the cases reported viewed as essential, that is, of unknown genesis. Endeavoring to account for the phenomena of the disorder, these are excluded, disease of the heart muscle, disturbance of the intracardiac ganglia, and stimulation of the sympathetic nerves. There remains as a possible explanation, therefore, only inhibition of the vagus, and this is held to be the cause of the affection. It is not due to an enormous acutely occurring dilatation of the heart and consequent frequency of heart beat, as has been suggested. The theory of the motility of the neuron is thought to more fitly account for the occurrence of the phenomena of the disorder than any other proposed. The retraction of the terminals of the neuron, and the consequent loss of control of the vagus may be induced by many causes, as for instance excessive demands beyond the functional capacity, excessive exertion, defective nutrition, fatigue, etc. Excluding permanent, and reflex or sympathetic tachycardia, the diagnosis of the affection is not difficult.

The prognosis of the affection is uncertain. Many cases cease spontaneously, others continue for years.

The treatment is best confined in the term symptomatic. Compression of the vagus in the neck, local applications of ice, drinking of ice water or hot coffee, morphine, digitalis, and various nervines have been employed with asserted good results.

Adipogen--Prepared Cod Liver Jelly.

A Nourishing food, Indicated in Pulmonary Diseases, Consumption, Chronic Pectoral Complaints, Bronchial Affections, and Diseases of Children Connected with Scrofulous Diathesis.

Adipogen is recommended to the medical profession as a palatable and well-relished preparation of the fresh liver of the codfish, containing all the oil naturally present in the liver as well as its entire active principles (alkaloids) which act as powerful stimulants to nutrition and assimilation, and to which the oil owes its alterative properties. A main feature in favor of Adipogen, in preference to codliver oil or its emulsion, is its mild and agreeable taste, which is entirely unlike that of codliver oil.

Adipogen is manufactured in Norway from fresh codlivers, the process of preparation being the subject of a U. S. Patent, which describes the same as follows:

"The invention relates to the prevention and preparation of fresh codfish liver and, consists in a preliminary absolutely aseptic treatment and in drying and subsequently boiling in vacuo and finally crushing and packing the finished product. It has been ascertained by experiments that additions of antiferments such as Boracic Acid, Salicylic Acid, etc., to codfish liver, in order to preserve it are unsatisfactory. To carry this invention into effect fresh codlivers are dressed with sterilized fresh water, removing all blood, clots and fibres, after which the liver is dried by warm air at a temperature of about 30 to 40 degrees centigrade. The liver is then infused throughout by a sterilized 10 per cent. solution of Chloride Sodium and

"distilled water. After the liver has been drained it is boiled in vacuo at a temperature not sufficient to burst or destroy the tissue of the liver."

According to researches of Prof. R. H. Chittenden, of Yale University, the preparation is characterized, in addition to the large percentage of codliver oil, by considerable albuminous or proteid matter, which, with the inorganic salts present, materially adds to its value as a nutrient. Taken with bread or toast, even children take it willingly and with liking; its administration can be continued for a long time without causing the slightest repugnance, and it is easily digested and assimilated, as demonstrated by extended trials in hospitals and public institutions in Christiania, Norway.

In the medical and dietetic treatment of phthisis, scrofula, rachitis, and strumous diseases codliver oil must be accorded the first place. Owing to improvements in the process of manufacture this valuable medicinal product is now commercially obtainable of good quality. But it possesses a far from pleasant odor and has a tendency to disturb the digestion, causing the much dreaded repeating. Eructation and repugnance certainly brought on by the continued use of codliver oil, which features considerably interfere with the unlimited use of the remedy, are due to impurities which are partly formed during the process of manufacture by decomposition and putrefaction of the liver tissue, and secondly to certain products from the oil itself formed by the oxidation of the free fatty acids. These objectionable characteristics of codliver oil have led to the manufacture of a number of pharmaceutical preparations, of which codliver oil emulsion represents the most important one. It is evident that in emulsions the impurities of the oil are only disguised but not removed, and for this reason eructation and disturbed digestion are by no means avoided. The best emulsion, or rather emulsions which enjoy the best reputation, contain only 33 per cent. of codliver oil, consisting therefore of over 66 per cent. of flour, starch and mucilaginous matter, which are unnecessary and therapeutically undesirable additions for the patient. Furthermore it is known that many lots of codliver oil are periodically offered for sale, which are of inferior

quality and cheaper than the best Norwegian oil as supplied to pharmacists, but readily taken up by emulsion-makers, because the deficiency in the quality of the oil, the odor being covered by aromatics, is not noticeable in the manufactured product.

The therapeutical justification for employing the emulsion is said to be that a minute subdivision aids its absorption into the system, which claim is certainly erroneous, because only mechanical subdivision and not physiological and chemical emulsification is obtained, and furthermore any emulsion passing through the stomach will be destroyed as such by the hydrochloric acid of the gastric juice before it can reach the duodenum. The only advantage which may justly be claimed for emulsion is its agreeable flavor, hiding the obnoxious taste of codliver oil and thus facilitating its administration, particularly with children.

In Adipogen we possess a preparation in which the fat producing qualities of the oil as well as the alterative and tonic properties of the alkaloids of the liver are combined with a naturally mild and agreeable taste entirely different from that of codliver oil, resembling that of fine, salted Sardines à l'huile.

The requirements of the trade which dictate that codliver oil should be clear, of a light yellow color, and non-congealing, i. e., that it should not contain elements which separate from it as solid bodies in low temperature, have forced manufacturers to employ the refrigerating process, by which certain particles, the glycerides, are removed as worthless, while therapeutically they should be retained. It has been proven beyond a doubt that the value of the remedy as a fat producing agent lies in the fatty acids which it contains in the shape of glycerides; and it is necessary that they should remain in the oil absolutely unchanged.

All these requirements are fulfilled in Adipogen, and inasmuch as the alkaloids of the liver are only sparingly soluble in the oil, Adipogen embodies absolutely all the medical qualities of cod liver, and is therefore the best preparation yet recommended to the profession.

The dose for adults is a teaspoonful three or four times a day, for children half that quantity. It is advisable to eat

a piece of bread or toast after taking Adipogen, or it may be spread on bread like butter. It is better relished when hard, and it should therefore be kept in a cool place, and on ice in warm weather, carefully covered.

The Klebs-Loeffler Bacillus in Apparently Normal Throats and Noses.

H. W. Gross (Univ. Med. Mag.) states that from the investigations conducted at the Children's Hospital of Boston it was shown that out of 316 cases—the total number examined—26 at one time or another showed the presence of the Klebs-Loeffler bacillus. This gives a percentage of 8.2. Out of these twenty-six cases showing the organism two may be said to have had clinical diphtheria. Omitting these two, we may say that out of 314 normal throats and noses examined 7.9 per cent. contained bacillus of diphtheria. The average persistence of the bacillus on the mucous membrane was fifteen days; the shortest time was one day, and the longest 103 days, or over three months. Of these cases the nose was the principal habitat in 17 cases, or 65 per cent. the throat in the remaining 35 per cent. In one case the Klebs-Loeffler was found, together with other organisms, in the ear, the child suffering from otitis media, which may or may not have been due to this bacillus.

Of the twenty-six cases in which the organism was found, one is deserving of special notice from the length of time in which the infection persisted. Daniel C., aged 9 years, was discovered having the organism in his nose on January 31, two negative cultures, twenty-four hours apart, having been obtained one week before. From this time until May 13 daily cultures showed, with a few exceptions, the persistence of the organism on the nasal membrane. On May 14, 15 and 16, no Klebs-Loeffler bacilli were found, and it was thought by those in charge of the case an opportune time to rid the hospital of his presence. He was therefore discharged. Prior to this time, it is interesting to note, on several occasions the bacilli seemed about to disappear. On February 25 and 26 none were found; on March 13 and 14 cultures were

negative; and, again, on March 29, 30 and 31, three consecutive days, no diphtheria bacilli were found. But always on persistent search the bacillus was again demonstrated, often growing profusely in the tube. The virulence in this case was first tested by a culture taken on April 1. Two pigs were inoculated and both died within forty-eight hours, the autopsy showing the usual lesions of experimental diphtheria. Cultures taken on May 2 proved fatal to one guinea-pig in four days. Finally, a culture inoculated into two pigs, on May 12, seemed to possess little or no virulence, the only reaction being local induration, and in one pig, ulceration.

These experiments seemed to show that diphtheria bacilli, virulent and non-virulent, are present in an unfortunately large percentage of apparently unaffected nasal and pharyngeal mucous membranes.

The Modern Treatment of Diphtheria in Private Practice.

By W. A. WALKER, M. D., New York.

On the evening of September 14th, a little girl called at my office with a request that I should visit her sick brother. The public schools opened their doors on that day, and Johnny McD., although complaining of feeling sick, was sent to mingle with the hundreds of other school children.

An inspection of the case showed all the clinical symptoms of diphtheria, with a muco purulent discharge from the nostrils so fetid that the odor filled the room. The examination completed, the mother anxiously inquired: "What is it?" "It is a case of diphtheria," I said; and her face blanched, her voice trembled, as she said quietly: "I know what that means—I have buried two children with that."

On the 19th the father called at the office to say that Johnny could not be kept in bed, and they thought he was well.

In a skeleton way this illustrates the results of treatment with anti-diphtheritic serum, and stands in bold contrast with the drug treatment with the bottles of medicine, the cruel swab, the sleepless nights, the futile attempt to force food

and medicine, the onset of secondary infection, and death or a tardy convalescence.

The uniform success which I have observed, and had in my own practice, has convinced me that the treatment of diphtheria with antitoxin is a great advance in therapeutics, and it is my impression that critics who have condemned this treatment have in most instances either observed only hospital patients, or have not persisted in the treatment, or perhaps have not had a fresh and reliable serum, or have not used it early enough.

From the standpoint of a general practitioner I confidently expect to cure any case of diphtheria in private practice seen within forty-eight hours of the onset of the disease.

Take, for instance, a typical case: a previously healthy child, six years of age. The family physician is called in and finds the following conditions: general depression, face pale, pulse accelerated, temperature about 101° F. Inspection of throat shows general diffuse redness, with the characteristic deposit on one or both tonsils. This peculiar deposit once seen is not readily forgotten; the high fever, flushed face, and rapid pulse usually seen in pseudo-membranous tonsillitis are absent; the margin of the inflammatory process is usually sharply defined in diphtheria and not in tonsillitis. In follicular tonsillitis the leading symptoms are: intense congestion of the tonsils, with small discrete white patches, pulse and temperature high.

If, however, the symptoms are not well defined and the differential diagnosis cannot be clearly made, we should give the patient the benefit of the doubt and a dose of anti-diphtheritic serum administered at once. Then a culture should be made to verify the diagnosis. If I believe the case to be diphtheria, or have a reasonable doubt as to the diagnosis, I use the antitoxin whilst waiting for the report from the bacteriologist. If the case turns out to be tonsillitis, no harm has been done, as I consider a fresh, reliable serum, properly administered, devoid of danger.

Given, then, a case where the diagnosis of diphtheria is clear, I give as quickly as possible either 1060 units or 1500 units of the serum. The attendant is in-

structed to keep the throat clean with a bichloride solution of 1 to 1000; or a solution of permanganate of potash may be used, 1 to 4000, if the attendant is not a trained nurse. With a young child, difficult to manage, it is best to inject the solution into the nostrils; in older children a spray can be used in both the nostrils and throat more advantageously.

At the end of twenty-four hours I expect to find the membrane beginning to shrive and curl up at the edges. In any event, however, I administer a second injection at this stage of disease, and in a majority of instances this is sufficient. I advise very strongly that the second injection be given in all cases where the diagnosis of diphtheria is clear. I do not expect a cure from one injection, and rarely omit the second. If the symptoms do not indicate the beginning of convalescence at the end of forty-eight hours, I give a third injection. In fact, I would use a fourth injection if it seemed advisable at the end of another twenty four hours, but I think this will rarely be found necessary.

I have not used anti-streptococcic serum, but I am convinced that in cases in which the treatment has been delayed, or in cases showing the streptococcic infection, proven by bacteriological investigation or from the peculiar red zone of inflammation which begins to spread

from the margin of the diphtheric process, the anti-streptococcic serum should promptly be used. Not only would I do this, but in cases of severe acute disease in the throat, which present all the symptoms of diphtheria, but where the bacteriological report does not confirm the diagnosis, I would resort to the anti-streptococcic serum. In fact, if I should have a case of diphtheria in which the membrane does not begin to peel up by the end of the twenty-four hours following say the second injection of antitoxin, I will use the anti-streptococcic serum.

The importance of a fresh, reliable, highly concentrated serum must not be lost sight of, and as I have full confidence in our American products I do not use imported serums. I have used several serums, but have been best satisfied with the effects of that sent out from biological department of Parke, Davis & Co. I heartily approve of the way this firm now puts up the serum, in bulbs instead of in bottles. It is not only highly concentrated, but, being hermetically sealed, should keep indefinitely. It is put up in bulbs of so many units, 250, 500, 1000, 1500; and, each bulb being a dose, there is no temptation to use a serum that has been exposed to the atmosphere. I append a table giving a report in detail of the last seven cases treated in private families.

TABULAR REPORT OF CASES.

	1	2	3	4	5	6	7
Age of Patient, - - - - -	8 years.	2 years.	2 years.	11 years.	3 years.	3 years.	8 years.
Other cases in family, - - - - -	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.
Bacteriological cultures, - - - - -	1st day.	1st day.	3d day.	2d day.	2d day.	2d day.	d day.
After first appearance of the disease antitoxin was given, - - - - -	3	2	2	3	3	2	3
Doses of antitoxin given, - - - - -	1500	1500	1500	1000	1500	1500	1500
Units in each injection, - - - - -	1000	1500	1500	1000	1500	1500	1500
Total number of units in each case, - - - - -	3500	3000	3000	3000	4500	3000	4500
Antitoxin used, - - - - -	Gibber.	B. of H.	B. of H.	P.D. & Co.	P.D. & Co.	P.D. & Co.	P.D. & Co.
Intubation, - - - - -	1st day.	1st day.	1st day.	2d day.	2d day.	2d day.	2d day.
Tube retained, - - - - -	3½ days.	3½ days.	3½ days.	2½ days.	2½ days.	2½ days.	2½ days.
Recovery, - - - - -	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.

As to the medicinal treatment, I do not give any drug with the idea of influencing the course of diseases. I treat the conditions as they rise symptomatically. If I have evidence of the absorption of poisonous secretions, and a coated tongue, I give calomel tablet triturations, $\frac{1}{4}$ grain every hour, until the bowels move freely. Alcohol is rarely needed

in cases receiving the serum treatment, especially if it is used early enough, whereas, under the old treatment, when we were so apt to find profound toxic symptoms, alcohol was more often needed. It is perhaps well to state here that I prefer fluid nourishment, principally milk, during the course of the disease.

Cerebral Tumors and Abscesses; Their Pathology, Symptomatology, Diagnosis and Surgical Treatment.

This was the title of a paper by Dr. Geo. N. Lowe, of Randall, Kansas, read at the second Pan American Medical Congress.

The pathogenesis of endocranial, or Cerebral tumors and abscesses; is, a subject of paramount importance to every surgeon and clinician. Although the brain and its membranes are encompassed or surrounded by a bony wall, it is no less exempted from inflammation, traumatism, tumors, abscesses, degenerative diseases and pathological changes, than any other region of the human body.

A tumor must not be confounded for an abscess, as they are pathologically and histologically different; primarily originating from different causes, and ultimately ceasing their existence under different pathological changes. There is a whole group of tumors which may be defined and classified separately. 1. Benign. 2. Malignant. A tumor in the broadest sense of the word signifies a hyperplasia, or an excessive deposit or augmentation of the elements composing an organ, from any cause. Whereas an abscess is a puss formation within some cavity of the body, the result of localized inflammation.

With our present knowledge pathologically and histologically of benign growths; that, a complete extirpation or enucleation of the growth or parts affected, there is but slight possibility of their recrudescence. This class of growths, is generally composed of normal tissues with their modifications. In dealing with the malignant tumors we have to contend with Mesoblastic, Hypoblastic, and Epiblastic tissue formations, of nucleous division and cell proliferation, such as the various types of Sarcomata, and Carcinomata; and sometimes the Epitheliomata may be included.

In dealing with the malignant tumors we may expect a recrudescence of the growth in some region of the body unless there is a complete extirpation of the parts affected, while the growth is in its embryonic or incipient state. Although, our present knowledge of Topographical

Anatomy and Cerebral-localization is not altogether correct; yet, at the same time, it is sufficiently accurate to enable us, in the great majority of cases, to approximate the region or regions of the brain in which, the lesion or lesions are situated; therefore, aiding us in establishing a correct diagnosis regarding the situation or location of the lesion.

Compound Comminuted Fracture of the Radius and Ulnar.*

The title of the paper I shall burden you with for a few minutes, is, 'decidedly more imposing and nearly as long as the paper itself. I will not unnecessarily detain you by dwelling upon the facts that cover so large a field, and one too, so interesting to every surgeon and every practitioner as well.

I will merely relate you a short history of what I have found to be so rare a fracture that diligent search fails to find another similar one on record.

I have taken the trouble to search the following works on Surgery: Treeves, Ashhursts, Ashhursts Encyclopaedia including the seventh volume, Dennis System of Surgery, the latest edition of an American Text-book of Surgery, Erricksen, Agnew, Wyeth's Surgery, and Surgery by American Authors gotten up by Prof. Roswell Park. These works with some fine journals were all the literature at my command; I wrote a number of very able surgeons, whose skill and intellectual attainment deservedly place them at the head of the surgical world such men as Drs. Wyeth and Lewis A. Stimson—all of whom wrote me they knew of no such fracture.

(The books and journals I read so carefully abounded in all other sorts of fractures but the one like mine. There is nothing new under the sun, it is said, and should I report a fracture familiar to some of you I humbly beg the pardon of the Association, and with becoming chagrin turn loose my golden bird and fall back upon the result in the case to redeem me.)

I believe it was the elder Gross who said, he never approached a fracture of

*Abstract of a paper read before the Southern Surgical and Gynecological Association by Dr. W. M. Hunter.

any sort without fear and trembling. In this short expression is crystalized a great truth, and no surgeon possess the acumen to know what interference might occur to prevent or prolong the healing process of any fracture he is called upon to treat.

Now, with these few preliminary remarks which I deem necessary to impress you with the fact that, I thoroughly appreciate the dangers attending fracture, I shall briefly relate the history of the fracture which is the subject of this paper.

On July 29th, last, during that extremely hot weather that spread over the whole country, I received a telegram from Capt. N. to come at once to see one of his boys who had sustained a fracture of the arm; I was out and the message was delayed quite a time, the train having gone, it was necessary to drive through the country. I at once proceeded to add a few articles to my surgical satchel, one article especially being a thin sheet of Eech or Baas wood, which I intended to use as a splint. When every thing was ready, and not knowing the variety or complications of the fracture, Mr. C. M. Franklin kindly accompanied me, he being a student of the College of Physicians and Surgeons of New York, for several years. The patient robust, healthy, ten years of age. The fracture was caused by a heavy green stick of timber falling directly upon the arm, thus being a direct fracture which is unusual in a young subject. The fracture had occurred six hours before I reached the patient. Without boring you with the ordinary details of making every thing aseptic, my splint accurately measured on other arm and putting hot water so that splint would mould itself accurately to the injured arm; I inspected arm closely, it was a compound fracture of the right force-arm with a spicula of the Ulna slightly protruding, this was one inch and three-quarters from the wrist joint: the soft parts immediately and for some distance surrounding the seat of fracture were terribly bruised. When I grasped the arm I felt that the Radius also had been fractured. I had very little trouble in reducing fragment of the Ulna, and followed the opening with my finger. To my surprise I found the Ulna broken into three fragments, and the Radius also fractured into three parts or, rather, two

fragments had fractured off the end of the Radius.

I succeeded by my finger within the wound and my other hand on the outside in reducing the fragments very nicely their natural position. I flushed out the wound thoroughly with to five thousand Bichloride of boiled water; I washed his hand and arm to the elbow in same solution, held his arm myself until Mr. Franklin padded with cotton then one rectangular splint for me, and I then turned the arm over to him (the boy's father administered the chloroform during this brief period) I dusted the wound with Iodoform, introduced a drainage tube, placed over the whole Iodoform gauze, and placed around this some large rubber tissue intended to protect the bandages from all discharges.

I again assured myself that the arm was in proper position, measured both arms to see that the fractured arm had the proper extension, and by a method I have never seen mentioned and one that I have used for several years and know to be absolutely correct, I easily ascertained the position of the arm. If the arm is to be placed in supination the thumb must be on direct line with external condyle of the Humerus: if between supination and pronation the thumb must be on a direct line between both condyles: if placed in full pronation the thumb must be on line with the internal condyle.

(I placed this arm in the position of semi-pronation. The splint was perfectly pliable and moulded itself to the arm beautifully under the pressure of the bandages.

There was nothing of special interest in the process of healing. I dressed it carefully when necessary.) I removed the bandages and examined the wrist three weeks after the receipt of the fracture for fear of ankylosis of the joint: I did this several times and gently moved the wrist. The middle of the fourth week I took off bandages and examined the arm for supination and pronation, and greatly to my delight and surprise I found proper movement between the bones. Six weeks later I discharged him with as good use of both wrist and arm as ever. I will repeat there are three special points with regard to this case:

First. There has never been reported a similar fracture.

Second. I have never read of the method I described to reduce the fracture of the fore arm.

Third. I have never seen nor read of such perfect results as were gained in this case, the wrist having perfect motion, and more wonderful and even miraculous as Dr. Stimson wrote me, there is absolutely no interference with supination and pronation.

Liquid Hæmoferrum, (Liquor Hæmoferræ)

Frederick Stearns & Co. state that Liquid Hæmoferrum was introduced by them to meet the demand of physicians who often desire to prescribe Hæmoferrum in the liquid form and in combination with a stimulant. It is a delicious cordial, each teaspoonful of which contains six grains of Hæmoferrum, which is equivalent to two Hæmoferrum Pilloids. Hæmoferrum is that form of iron which exists naturally in the blood—in other words it is pure oxyhæmoglobin. A full description of the product will be found in the monograph on "Oxyhæmoglobin and Allied Products" published by the Scientific Department of Frederick Stearns & Co. Their circular on Hæmoferrum contains a number of clinical reports from physicians who have used the article successfully in their practice. Both of these pamphlets will be sent free to physicians desiring them. Send mailing address to them with requests and copies will be mailed promptly.

The Treatment of Eczema in Children.

One form of eczema which may materially interfere with the health of the child is that form which usually appears on the bottom and posterior aspect of the thighs of infants. Its origin can generally be traced to the irritating quality of the urine and feces. These children cry a great deal, sleep proportionately little, and, besides, there is danger of ulcers and abscesses forming on the diseased parts, with their accompanying ill effects on the health, and even more serious consequences may result. As these cases often resist all kinds of treatment with ointments and baths, Dr. Dueges recommends one which has

given him the most rapid and excellent result.

The child must at first be given a bath of 27 to 28° R. It is of importance to dry the child after the bath without friction of the diseased parts, by the simple pressure of a soft towel, or absorbent cotton. Following the bath, any kind of babies' powder is to be thoroughly dusted on the eruption, and then it is to be covered with guttapercha sheeting, which must be kept well in place by the diaper, or if necessary, by a roller bandage. In this way the deleterious effect of the urine coming in contact with the skin is avoided, and a chance given the parts to heal. Frequently the moist eczema is already converted into the dry, scale form on the second day of treatment, and rapid healing takes place.

The Influence of Unilateral Castration on the Origin of the Sex of the Foetus.

During the last few years an attempt has been made by Seligson to re establish the Hippocratic doctrine of the origin of the sexes. Strictly speaking, Seligson's theory is not the same as that of Hippocrates, for the Father of Medicine did not say that male foetuses came from the right ovary and female from the left, but that males lay on the right side and female from the left, but that males lay on the right side and females on the left. With regard to Seligson's view that the right ovary supplies male ova, and the left female, A. Goenner has made experimental investigations on rabbits which tend to disprove it. A female rabbit castrated on the left side was put to a male rabbit similarly treated, and the result was two young ones, one male and the other female. A similar pair of rabbits had four young ones, two males and two females. Again, a female rabbit castrated on the right side was brought to a male rabbit also castrated on the right side, and the result was four males and one female. Goenner, therefore, points out that whatever may have been the case with the Russian rabbits experimented on by Seligson, the Basel animals did not give results at all supporting his theories, quite the reverse. He thinks

that possibly mistakes may have been made with the recognition of the sexes, as it is often difficult in the early stages of development to ascertain clearly the rabbit's sex. Gænner waited till they were two months old before ascertaining the sex finally, but Seligson does not say when he examined the animals from which he draws his conclusions.

Treatment of Tuberculosis and Anæmia by Means of Rarefied Air Baths,

Dr. Daniel Vergara Lope (Pan American Medical Congress, Nov. 17th, 1896,) in discussing this subject made the following headings:

1. Effect of altitude on tuberculosis. Summary of the Statistics of ordinary and hospital mortality.

2. Modifications observed at the altitudes of Mexico, Columbia, etc., on the duration, progress and termination of Tuberculosis. Pathological Anatomy.

3. Summary of the opinions of more than 30 physicians with respect to the utility of elevated climates for the cure of Tuberculosis.

4. Comparative immunity according to the altitude.

5. Cases in which these elevated climates are indicated. Results of the treatment.

6. Effects of rarefied air on tuberculous Guinea Pigs. Experiments. This treatment does not exercise an unfavourable influence on the progress of the disease.

7. Effects of rarefied atmosphere on tubercular persons. Experiments. Cures obtained. There is no hemoptisis. Increase of appetite, strength, sleep, and in the red globules. Diminution or disappearance of perspiration. Neuralgia, Cough, and Expectoration. Constant decrease in the temperature and in the Dispnoea. Improvement in the Stethoscopic symptoms. Influence on the Koch Bacillus.

8. In a rarefied and dry atmosphere, the general conditions are improved, and the useless excess of water is got rid of. The pulmonary congestion is attacked mechanically, by deviation of the blood from the diseased to the healthy parts and from the centre to the periphery. Decrease of the pathological secretions through the want of water to feed them.

9. Treatment of certain forms of Anæmia, by means of rarefied air. Cures effected.

10. Future of Aero-therapy. Baths of compressed air or of rarefied air to modify the internal medium in pathological conditions.

Diagnosis of Tuberculosis from the Microscopic Study of the Blood.

1. That the diagnosis of tuberculosis from the morphological appearance of the blood rests upon the hypothesis that each individual has a biological prototype in the leucocytes of his own blood.

2. That leucocytes are independent organisms with functions analogous to those of the larger organism.

3. That they pass through various stages of growth and decay.

4. That disintegration of leucocytes may occur at any age.

5. That the leucocytes are tissue formers.

6. That as are the leucocytes so is the individual.

7. That tuberculosis is a disease characterized by tissue disintegration.

8. That in tuberculous blood there is abundant cell disintegration,—premature development,—premature decay, and a more or less deviation from the normal percentages of the various types of cells.

9. That if there is a marked disintegration in the leucocytes, it is with certainty that we can predict a similar condition in the larger organism.

10. That tuberculosis possesses a combination of blood appearances from which a diagnosis may be made earlier than by any other means that we now possess.

11. That these may be recognized by appropriate microchemical stains and a high magnification.

12. That they can be recognized even before the disease manifests itself in the individual.

13. That they are sufficiently marked in tubercular persons, or even in those with a strong tubercular predisposition, to enable a diagnosis being made from the blood alone, without knowledge of

*Abstract of a paper read before the Second Pan American Medical Congress, Nov. 16, 1896, by Dr. A. M. Holmes of Denver, Col.

the history or physical condition of the patient.

14. That thus far, no other pathological condition has been found which presents similar blood appearance.

15. That to secure an early diagnosis would enable many to avail themselves of favorable climatic changes, and thereby delay or even prevent the destructive results which would otherwise inevitably follow.

Treatment of Uterine Disorders by the General Practitioner. With Clinical Notes.

That a very large percentage of the ailments of the female pelvic organs can be relieved and cured by intelligent and well directed local and constitutional treatment, is a fact which is becoming more and more evident every day. Indeed it has always been held by the careful and conservative element of the medical profession that resort to the surgeon's knife is vastly of more frequent occurrence than there is necessity for. The profession at large, however, gave way to the craze for indiscriminate operating; not only in the domain of gynecology, but in every branch of the art and science of medicine, until now the general practitioner is become little else than a drummer for the surgical specialist. Such abject and absolute surrender to the specialist has injured the physician in more ways than one. The diminution of professional income has been marked likewise the prestige; and that abiding faith and confidence which was wont to be reposed in the family physician is now, most unhappily, a thing of the past. The signs of the times, however, point to an awakening of the profession to the evils brought about by a monopolizing specialism. The family physician is beginning to see the disadvantages, both to himself and patient, of this wholesale deference to the specialist, and in consequence thereof many physicians are now treating successfully cases which but recently would have been turned over to the gynecological surgeon for mutilating operations. In order to illustrate, in a measure, the value of local cian of eminence, and a gentleman for

and constitutional treatment I beg to submit the subjoined clinical notes.

Case 1.—A married woman, age 32. For several months had complained of dull heavy pains in abdomen and back, worse during menstrual periods. Menstruation was scanty and irregular, and there was a moderate leucorrheal discharge. She had lost flesh, was weak, had little appetite, and slept badly.

A specialist whom she had consulted had advised removal of the ovaries and tubes, as the only relief. Examination revealed ovaries tender and somewhat enlarged, and endometritis.

She was ordered a hot boric injection twice daily, and put upon the following prescription:

R Dioviburnia ʒij
Fl. ext. cimicifuga } aa ʒss
Fl. ext. hydratis }
Elix. simplex ad q. s. ʒiv
M. Sig.—Two teaspoonfuls four times a day.

Under the above treatment improvement began at once, and in two months she was discharged cured.

Case 2.—A virgin age 21, pale, anemic, nervous, and of poor muscular development. For two years menstruation had been profuse, with occasional metrorrhagia. Her principal trouble, however, was dysmenorrhea, the severity of the attacks often compelling her to resort to opiates. The following prescription was ordered, conjoined with regular and systematic exercise in the open air:

R Sodii brom ʒiv
Dioviburnia ʒij
Fl. ext. ergot ʒiv
Elix. simp. ad. ʒiv
M. Sig.—Two teaspoonfuls three times daily.

This was continued for eight weeks, when an addition was made to the treatment in the shape of elixir iron, quinine and strychnine. An occasional saline laxative was also given to overcome a tendency to constipation. The patient has now, at the end of three months, gained sixteen pounds in weight; the rosy hue of health is on her cheeks, and the menstrual function is normal. In conclusion I wish to remark that the preparation dioviburnia contained in the above prescriptions, is one of the best uterine remedies I have ever encountered. I must confess, however, that I was prejudiced against it at first (as I am against proprietary medicines in general) but hearing it recommended by a physi-

whom I entertain the warmest personal regard, I was lead to give it a trial. In a number of other cases besides those related here, I have had most excellent results from dioviburnia. In cases requiring an antispasmodic I have found it of especial benefit. In some cases I prescribe it alone, but generally in combination with other remedies.

D. S. MADDOX, M. D.,
Medical Summary.

[For the Charlotte Medical Journal.]

The Ten Dollar Tax.

Dear Doctors;—I wish through your valuable Journal to call the special attention of the medical profession in North Carolina to the present law requiring each practicing physician to pay a ten dollar tax for the privilege of practicing his profession in the above named State.

I want each county to send a petition signed by all reputable physicians in said counties to the next General Assembly praying for a repeal of the miserable law. Self respect, justice and humanity demand its repeal.

We have a petition which will be sent to Raleigh in good time, signed by all the physicians residing in Randolph county.

Brother physicians, get a move on you, and let us try the coming Legislature, and give them a chance to show their good sense by repealing a law that requires a doctor to pay ten dollars in order to do from two to five hundred dollars worth of charity practice.

T. T. FERREE, M. D.
Asheboro, N. C.

"Is First Class."

R. Lorez, M. D., Waterbury, Conn., writes: I can honestly say Hagee's Cord. C. L. Oil. Comp., "is first class," and will take a front rank among standard preparations, having tried it on my own boy who was in need of just such a combination.

The improvement was marked from the first, and best of all, he liked it. It is my custom to enter in my call book all good remedies, and Hagee's Cord. is to be found there.

Sore Throat Preceding Acute Rheumatism.

Dr. Goedal has studied closely the relation between sore throat and rheumatic fever. The number of cases in which this angina precedes rheumatism has been put down variously from 5 to 80 per cent., but Dr. Goedal thinks that the percentage should more nearly approach the first figure. He thinks that this sore throat is of the lacunar variety, and it is very painful. He then refers to the explanation of the connection of the two complaints. Researches into the cause of this sore throat have shown in the majority of cases the presence of the streptococcus or staphylococcus, but a specific micro-organism has not been found. On the other hand, the actual cause of rheumatism also remains unknown. Perhaps the local lesion in the throat is the way by which the specific micro-organism enters. The doctor, however, thinks that the angina preceding rheumatism is not necessarily the same affection as the rheumatism. He believes in a second possibility that the joint affection may be of a pseudo-rheumatic nature following upon the ordinary angina, and he bears out Roos's opinion that these cases differ from typical multiple rheumatic joint affection by their resistance to salicylate treatment, by a tendency to the development of rashes, and their prolonged course. In the majority of cases, however, these distinctions are not present. There are other entrances for the rheumatism poison besides the throat. Attention should always be given to the throat in those subject to rheumatism. By treating such sore throats with salicylates, the development of acute articular rheumatism may be avoided.

Tubercle of the Ovary.

Wolff, in a monograph on this subject, states that in 17 cases of tubercle in general he found 5 cases of genital tuberculosis—namely, 1 of tubercle of tubes and ovaries, 1 of uterus and ovaries, 1 of the ovaries, 1 of uterus and right tube, and 1 of the tube, with doubtful infection of the uterus. In none was the vagina or vulva involved. In all where the ovary was diseased both organs were involved. One important fact relating to the three in-

stances of ovarian tubercle is the course of the disease. On account of the relative frequency of tubercle of the tube, and the conspicuousness of a tube so involved, there is a prevalent idea that the disease, when the ovary is attacked, must reach it from without, passing up the genital tract. Yet in all Wolff's 5 cases there was widespread tubercle of the peritoneum, whilst the infection of the ovary was clearly incipient. Whatever may be the truth about tubal tubercle, ovarian seems always to be secondary, and it may arise from within and not from without.

Poisonous Face Powders.

At a recent conference of the hairdressers of Paris, says the British Medical Journal, it was stated that the rice powder so largely used by ladies was no longer composed of powdered rice, but was a mixture in varying proportions of white lead, chalk, starch, and alabaster. It appeared that in many instances injurious effects had followed its use, and it was urged that, in the interests of their calling, steps should be taken to prohibit its sale. In this expression of opinion we most heartily concur, and we hold that it is most desirable that the chief constituents of every substance vended as a cosmetic should be distinctly stated on the box or bottle. Many of these face powders are extremely expensive owing to their being flavoured with a variety of scents, the fashionable product known as "La Maréchale" containing iris, otto of roses, bergamot, orange essence, and other perfumes. The metallic ingredients most likely to be met with are carbonate of bismuth, white lead, and arsenic. The frequency with which paralysis of one or more groups of muscles follows the use or application of lead, even in minute quantities, is well known. Stevenson records an instance in which paralysis of the muscles on one side of the neck arose from the injudicious use of a hair dye containing lead, while Lacey has pointed out the injury to health which follows the use of white lead as a cosmetic by actors. Arsenic is certainly no less injurious, for some years ago at Loughton, in Essex, a number of children died from the use of a "violet powder" containing 38 per cent. of white arsenic. The French hairdress-

ers are quite right in condemning the use of such deadly drugs, and we trust that in future "rice powder" will consist of powdered rice only.

The Value of the Röntgen Rays in Surgery.

Dr. Carl Beck, (Second Pan American Medical Congress.)

Splinters of metal or glass, bullets, needles, etc., can easily be photographed, or seen by the fluoroscope. It is also easy to produce topographic-anatomical representations of the skeleton. The position of the foetus in utero has been demonstrated. Deficiencies of bones, deformities, dislocations, callus-formations in fractures, complications of fractures of the joints [pseudarthrosis, ankylosis, hypo-peri-and exostosis] osteitis and osteomalacic processes are all representable. The area of ossification in rachitis and the dentation line in hereditary syphilis, can be recognized, as well as caries of bones, tissue change in arthritis, osteophytes, calcination and ossification of cartilage and tumors of the bones. Koenig recognized a sarcoma of the tibia, a light mass of a lobular structure contrasting with the dark diaphysis of the tibia.

Suspected green-stick fractures can be easily diagnosed and the manner in which a fracture is treated also may be demonstrated by reproducing the limb together with the bandages, splints, etc. The Roentgen picture is thus a document, illustrating the treatment of the surgeon in charge; a record which might prove to be of great value in a medico-legal way.

Neusser has proved that phosphates as well as other urinary calculi can be well shown by the rays; the great obstacle in the diagnosis being that their receptacle, the bladder, is situated in the pelvis, the bony structures of which prevent the permeation of the rays. Recently it has been claimed that renal calculi could be recognized, but this is so far not sufficiently corroborated. The kidneys themselves can not be recognized. Gallstones, unfortunately, are permeable to the rays so that only a very indistinct shadow is obtained. Neusser, Goospeed and Cattell claim that they can diagnose

ticate their presence by this method. (I have tried the rays in 4 cases of well diagnosed Cholelithiasis, but I was not able to recognize the stones by the rays.)

The skull can be photographed and foreign bodies in its cavity [bullets] can be recognized. Calcified deposits in the lungs, the remainder of old healed tubercular processes, can be seen. Sklerosis of the arteries can everywhere, with the exception of the heart, be recognized.

The organs which are kept moving by the respiratory act, particularly the diaphragm and the liver, cannot be photographed, but very distinctly be observed, while in motion, with the aid of the fluoroscope. The same applies to the heart and parts of the pericardium.

Effusions, whether serous or purulent, cannot be recognized directly. But the finding translucent space, for instance between diaphragm and liver, a subphrenic abscess could be suspected.

It has been hoped, that the Roentgen rays would prove to have a directly curative effect in zymotic diseases. But the vitality of bacteria, at least of pathogenic bacteria, is not impaired by the rays even if the exposure lasts for hours.

Cystoscopy and Ureteroscopy with Exhibition of Instruments and Report of Cases.*

The author said that only recently had the bladder in women received the attention from Gynecologists that it deserves. Prior to a few years ago (1893) it was impossible to explore the bladder satisfactorily, and to do more than to "fish" a catheter into the ureters was unheard of. Dilatation of the urethra was done by very crude instruments and reports of cases of permanent incontinence of urine following stretching of the urethra with the *finger* are within the memory of most of us. Satisfactory inspection of the inside of the bladder was out of the question. To catheterize the ureter the bladder was filled with water and the operator went "fishing" with the end of a catheter for the ureteral orifice. Not until Kelly accidentally struck upon the

method to be described could bladder and ureteral troubles be satisfactorily treated.

The method depends on fish *distention of the bladder with atmospheric air*, which until recently was considered dangerous; and, second, *direct inspection* of the bladder and ureteral orifices. To do this are required the following simple but ingenious instruments: First, the *calibrator*, so-called because originally intended to measure the caliber of the urethra. It is cone-shaped and graduated in millimetres. The urethra is cocanized, and the calibrator well vaselined is introduced by a gentle rotary motion.

At an early stage in the work it was found that the external meatus was the point of greatest resistance in dilating the urethra. The second instrument is the *cystoscope* (made in various sizes), consisting of a straight tube, flanged at one extremity and having projecting at an angle from the same extremity, a handle. Fitting in the cystoscope is an obturator. After the urethra is dilated the cystoscope is introduced by a gentle, rotatory movement the obturator is withdrawn and air rushes in, distending the bladder. The author has suggested to Dr. Kelly that the cystoscope might to advantage be made shorter and with a wider flange.

The position the patient was made to assume, at first, was the dorsal with hips much elevated. The author has devised a pelvis elevator for this purpose. A better posture is the knee-chest, because in it the residual urine gravitates from the floor of the bladder to the most dependent part, and the suction apparatus otherwise necessary may be dispensed with. After exploring the entire inner surface of the bladder, which can be seen perfectly, it is easy to find the mouths of the ureters. Any kind of clear, reflected light can be used with a head mirror.

Through the cystoscope can be introduced the *ureteral searcher*, which is a small sound with the handle bent at an obtuse angle. At first, this is a difficult procedure; but practice makes it easy. The catheter is introduced in the same way as is the searcher.

The author tried for eighteen months to catheterize the ureters and had about decided that it was one of the things he could not do, when suddenly he hit upon

*Abstract of a paper read before the Richmond Academy of Medicine and Surgery. By J. W. Long, M. D., Professor of Diseases of women in the Medical College of Virginia.

it, and can now introduce the ureteral catheter in a few seconds.

The original *ureteral catheter* was devised by Simon. Pawlik modified it, and Kelly perfected the Pawlik instrument.

With a delicate pair of mouse-tooth forceps, it is not at all difficult to pick a piece of cotton, stone, etc., from the bladder; or, with an applicator, to make an application to its walls.

Whale-bone bougies are employed, first to determine whether or not the ureters are patulous; second, to protect them during hysterectomy.

The vesical balloon, devised by Dr. Clark, consists of a fine rubber bag with a stem of rubber tubing. It is used for the treatment of chronic vesical catarrh where there are marked changes in the bladder walls, and which are not amenable to treatment by ordinary applications. He employs it covered with a 10 per cent. gelatole of ichthyol, which melts at the temperature of the body. The balloon is buttered with the gelatole, rolled up, grasped in a pair of special forceps introduced through the cystoscope, when the balloon is distended with air; the medicine is thereby brought into contact with every part of the inner surface of the bladder. To prevent injury or rupture of the bladder it is important to learn first how far the balloon should be distended.

By means of the cystoscope, it has been discovered that many of the so-called cases of cystitis, especially in young women, are not general inflammations of the vesical mucosa, but hyperemia, or at most, limited inflammations; and many of them are easily and rapidly cured by mild solutions of nitrate of silver or some other astringent, applied through the cystoscope. The author cited one or two cases to demonstrate the efficiency of cystoscopy.

Case I. Was that of a young woman, married, who, for years, had had cystic trouble. Under cocaine anesthesia, the cystoscope being introduced and the area of inflammation determined, three or four applications of nitrate of silver sufficient to cure.

Case II, a young woman whose tubes and ovaries had been removed two years before the author saw her, for, probably, ovariosalpingitis. After the operation, ventral hernia occurred, for which she came for treatment. Inquiry revealed more suf-

fering from the bladder than from the hernia, and brought to light the fact that for thirteen years she had been the victim of cystic trouble. There was very little pus in the urine, but a slow, irritating, aggravating inflammation was present. Applications of nitrate of silver rendered it worse. Then, Dr. Clark's method was employed. This, at first, was painful. Four applications, at intervals of three days, were made, and now there is complete cure. The author afterwards relieved the hernia, which was as large as a peck measure, by operation.

Dr. Long said that he wished it clearly understood that he claimed nothing original in this work. Dr. Kelly should be credited with a large part of the recent advances. Knowing that he was working along these lines, he has been urged by Dr. Kelly to report his results, which he hoped to do more extensively in the future.

Varix in the Lower Extremity. Causes, Pathology, Symptomatology, and Treatment.*

Of all the severe infirmities which beset the human race, after middle life is reached, there is none, which of late years has received less attention from surgical writers, than that condition known by the laity as "broken veins" and in pathology, designated varicose-veins.

If we exclude malignant proliferation, there is no types of degenerative changes in the cutaneous and subcutaneous structures, more painful, or attended with more serious complications, many of which have been overlooked until recent years.

Like cancer, this state seldom declares itself unequivocally, until after maturity and towards the meridian of life, and similar to it clinically, in being always painful when full evolution is reached; attended like it too, with danger from hemorrhage, thrombosis, sepsis and interference with function.

Independence of the type of varix succeeding puerperal phlegmasia, the disease is more common in the male than in the

*Thos. H. Manley, Second Pan American Medical Congress.

female; and in the left than the right leg; below the knee than above it, and in the profunda, than the perifascial vessels.

The etiology of varix is now well understood, in the general run of cases. The causes in operation may be divided into two classes. The first, are clearly constitutional or systemic; while the second, is partly local; or, in other words, predisposing and determining.

Among the first, comes:

- 1st. Hereditary influence.
- 2d. The physiological state.
- 3d. Occupation.

Local—Causes.

- 1st. Hæmostasis (Hæmic Changes).
- 2d. Trauma.
- 3d. Infection.

Besides the above may be enumerated as causative factors, defects of development, anatomical, and nerve enervation or trophic.

PATHOLOGY.

The primary changes in the vein commence in the connective tissue stratum, lying between the serosa and muscle, are undoubtedly inflammatory, extending into and involving the vasa-vasorum, which, as Briquet and others have pointed out, are sometimes themselves tortuous and angiomatous.

We have then, first, hyperplasia, with resorption of the muscular elements, with a weakening and dilatation of the tube. My own observations in a large number of these cases, have led me to regard the valvular changes as consecutive to those involving the wall of the vessel.

As the vessel widens and the valves become defective the blood current becomes sluggish, increases in density and is prone to coagulate, and in places, completely block the finer tributaries.

Various types of degeneration now succeed, which not only involve the investing tunics of the vessels, but spread widely into all the tissues, not even sparing the most resisting of all, the bone shafts.

Since the classic essay of Verneuil on varicose veins, it is now generally admitted by all pathologists, that degenerative changes of the veins commence in the deeper, or intermuscular, giving rise to neuralgic pains, atrophy of certain muscle groups and impairing the strength of the limb.

Varicose Ulcer, that painful infirmity of the working classes, is the indirect consequence of disease of the veins. The vitality of all the tissues is enfeebled, the muscular structures, resisting the longest. The integument is atrophied in advanced cases and on the slightest irritation takes on an inflammation, prone to run into ulceration. These ulcers usually are readily healed, though practically never cured, inasmuch as the condition which gives rise to them perpetually remains.

The accidents of varix are those common to any severe lesion of a vein, viz., (a) hemorrhage from opening of a vessel the least serious, though apparently the gravest. (b) Thrombosis.

It is difficult to estimate the serious consequences following formation of the blood clots in the veins. When the large trunks are occluded, there is a back-tide into the capillaries; this finally extending into the arteries and often giving rise to senile gangrene, from grave, circulatory disturbances.

On the other hand, the clot has become displaced and sent on in the general current, to block up the pulmonary artery or one of its branches.

Phlebitis undoubtedly is present as a chronic condition in all varieties of varix. It only becomes a serious complication when purulent infections extend to the vessel from eccentric sources. When this occurs, septic elements are carried to the lungs, as infarcts and foci of general infection, in the pulmonary capillaries.

SYMPTOMATOLOGY.

Phlebectasis has a simple *ensemble* of symptoms when the disease is well established and the superficial veins of the limb are involving, in most cases.

Yet, even here, there are sometimes difficulties in the way of definite diagnosis, when extensive sacculation of the saphenajor occurs, and bulging masses of vessels occupy the crural opening. These have been mistaken for hernia and treated by a truss.

The obscurity in symptoms is the greatest when the deep channels are affected, or the varices lie over the course of an important nerve-trunk. Here, varix has been mistaken for sciatica in other situations for rheumatism, and has led some to believe that the primary changes in the vessels being secondary. The princ

grounds for this position, are the presence of pain, analgesia or anaesthesia of the surface.

But, this most certainly, confounding effect with cause and, is an indefensible conclusion. Any one who has made anything like an intelligent study or investigation of the circulation, from an experimental and clinical standpoint, knows, that when, under any circumstances, the circulation is seriously embarrassed in a limb, pain is one of the first intimations of it.

Thus, when the femoral-artery is ligated for aneurism, peripheal sensation is at annulled; in the lower limb, the root becomes cold and numb and there is a deep-seated, dull pain. These phenomena continue until the collateral vessels have taken on the general circulation.

If we place a constriction about the limb with sufficient firmness to entirely suppress the venous circulation; immediately pain begins. The whole limb becomes livid and numb. The fresh arterial blood is damped back, there is a local asphyxia of the tissue. They are being starved and give off a warning note, before they finally succumb. The neural symptoms then, in varix are in no sense a cause, but a consequence, which will quickly disappear when the weight of the column of blood is removed; as in the horizontal position of the body, at rest.

TREATMENT.

The treatment of varicose veins, some of the conditions leading to them, and their complication, should be constitutional and local, prophylactic, palliative or radical.

It should be remembered that in their evolution and development, they are not altogether unlike hernia; they are displaced viscera, the harm resulting as much from their encroachment on neighboring structures, as the changes in their own integral parts unhappily, with most cases we must be content with, only temporizing measures. The vessels need support by bandage, or other means.

It is only in aggravated cases that operative surgery should be invoked; altogether there is no lesion more satisfactory to treat than this, through this means. In fact, with proper precautions there is no danger and probable cure can

be guaranteed in nearly all properly selected cases.

What a contrast with the beginning of the present century, when Sir Astley Cooper condemned all these operations on veins, and declared he would rather take his chances with a ligature on his femoral artery, than his large saphena?

Nature and Treatment of Tetany.

Oddo in a recent issue of the London Lancet discusses at length the symptoms of tetany in childhood, and points out that the theory adopted as to the etiology of the disease must have an important influence on the treatment to be adopted. He rejects the view, urged especially by Kassowitz, that in childhood tetany is merely a manifestation of rickets, through admitting that rickets favours the appearance of tetany. He accepts the view that the essential cause of the nervous symptoms is a form of toxæmia due to the absorption of poisonous bodies produced in the gastro-intestinal canal, owing to imperfect digestion which is most liable to lead to tetany is that attended by dilatation of the stomach, with long retention of the food in the stomach. He points out that tetany of the adult, which he believes to be essentially the same disease, is associated with a special form of gastric indigestion, attended by hypersecretion of gastric juice containing an excessive quantity of hydrochloric acid—Reichmann's disease. To the objection made by Kassowitz to this theory, that while dyspepsia is very common in children tetany is relatively rare, he offers two replies: (1) that for the production of tetany it is probably necessary that there should be a special form of perverted digestion, associated possibly with some special form of micturition, or with some peculiar condition of gastric secretion; and (2) the view that for the production of tetany there is necessary a special vulnerability of the nervous system. Not that the theory, which has been maintained, that tetany is essentially a disease of the nervous system, or merely a manifestation of nervous instability, however produced (for example, by heredity or malnutrition) should be accepted, but that the special form of toxæmia upon which the nervous phenomena are produced only

causes its characteristic effects when there is a predisposition in the nervous system. He calls attention to the fact that Weiss in the adult, and Bonome and Cervesato in children, have described certain lesions of a degenerative nature in the grey substance of the spinal cord, most pronounced in the anterior horns, in cases of tetany. Beginning with hyperæmia and cloudy swelling, they go on to degeneration of the cells, with overgrowth of the neuroglia. These lesions have not been observed in all cases which have been examined, but they agree very well with the nature of the symptoms observed during life, and are such as might be produced by a toxin circulating in the blood. With regard to the diagnosis he does not accept the opinion which has been strongly maintained by some German writers that laryngeal spasm is pathognomonic of tetany. A child may suffer from tetany and not from laryngeal spasm, while that condition may occur in children who never show any symptoms of tetany in the limbs. It is, however, very frequent in children suffering from tetany under the age of two years, and since it may cause sudden death it adds to the importance of an early diagnosis of tetany, for much may be done by treatment to remove the cause underlying the nervous instability. Retraction of the head and squint are also to be recognised as among the less common manifestations of tetany, and may lead to the diagnosis of meningitis. In the latter disease the tetanic spasm of the hands and feet so characteristic of tetany are seldom present, and when they do occur are less prominent symptoms—vomiting is more persistent, and constipation is the rule, whereas in tetany there is nearly always diarrhœa. In tetany the pupils are not unequal, and the pulse is frequent. In the treatment of tetany the two indications are to favour the expulsion of the toxic substances, and to prevent the formation. Both indications are met by calomel, which Oddo recommends to be given every other day in doses of $\frac{3}{4}$ gr. or more, according to the age of the child. Washing out the stomach is a useful measure which, however, must be adopted with discrimination owing to the risk of exciting laryngeal spasm. The mode in which the child is being fed must be carefully investigated,

and any errors corrected. If there be a deficiency of the acids in the gastric contents a teaspoonful of a solution of hydrochloric acid (1 to 1 000) should be given after each feeding; if there be an excess of acid a small dose of sodium carbonate or lime water. To check decomposition in the intestines he recommends in addition to, or in place of, calomel, benzo-naphthol ($\frac{1}{2}$ gr. every two hours) which may be combined with bismuth subnitrate. To wash out the large intestine with water, boiled or medicated with boric acid, may also be recommended, both as an evacuant and an antiseptic. Vermifuges should be administered if there be reason to suspect the presence of worms, for their presence may contribute to render the tetany more severe and inveterate. The child should be guarded from cold and excitement, which are known to be capable of determining attacks of tetanic spasms. For the immediate relief of the spasms warm baths are the most effective agents. Of drugs, chloral may be given by enema to relieve an attack; for an infant at the breast the dose may be 15 gr. in four enemas during the twenty-four hours. This dose may be double if necessary, without risk. As a sedative to be used continuously during the continuance of the tetanic state, and not only during the exacerbations, Oddo prefers bromide of strontium. In a very severe attack, after giving a prolonged hot bath, with cool affusions to the head, it may be necessary to resort to the inhalation of chloroform. If laryngeal spasm becomes suddenly serious, a sponge soaked in very hot water should be at once applied to the front of the neck, followed, if necessary, by inhalation of chloroform, which, however, must be used in small quantities, carefully watching the effect, as it may have a tendency at first to aggravate to spasm.

The Suprarenal Bodies.

Mühlman discusses the functions of these organs in a recent issue of the British Medical Journal. Extirpation of the suprarenals has been proved to produce severe and fatal circulatory and nervous symptoms in rabbits and guinea-pigs. The blood of guinea-pigs from whom the suprarenals have been removed has marked poisonous properties. A substance

has been separated from the suprarenals which has been stated to be brenzcatechin. As yet, the question of the active agent of the suprarenals has not been definitively settled. The author has extracted some substances from the suprarenals in which no brenzcatechin was present. He believes that the active principle does not consist of a single substance. Some characteristic reactions of brenzcatechin, such as the ferric chloride reaction, etc., can be obtained in the fresh suprarenal, or in one which has been in alcohol for a short time. If a section is made, and a few drops of dilute ferric chloride added, the medullary substance is colored green, while the cortex remains unstained. Thus, the brenzcatechin is formed in the medullary portion of the organ. Our knowledge of the minute structure of the suprarenal is still deficient. The medulla is made up of nerves, epithelium, and connective tissue, including blood and lymph vessels. The epithelial element is small. It may be supposed that the material out of which brenzcatechin is to be formed is build up in the cortex. The chief substance concerned in the formation of this body is present in the blood itself, and is derived from vegetable food stuffs—namely, from protocathechu acid. Brenzcatechin, like suprarenal extract, produces a rise of blood pressure. The formation of brenzcatechin in the suprarenals is of the greatest significance for pathology; it appears to throw some light upon the pigmentation of Addison's disease. Brenzcatechin, when exposed to light or when in contact with tissue in alkaline solution, becomes brown. It is represented that in Addison's diseases the brenzcatechin is not changed at once into some other harmless combination, but gains access into the blood. It is oxidised in the blood, and is changed into a brown product which discolours the skin. Its poisonous properties explain the severe symptoms of the disease. The author thinks that this hypothesis would also be in accordance with the disease of the coeliac ganglia in Addison's disease, as to these ganglia may be confided the functions of rendering brenzcatechin harmless. Gourfein has found that destruction by cauterisation in frogs, or removal of the glands on pigeons, leads to a rapidly fatal result. Destruction of one, whether the right or left, suprarenal body

only is not followed by any bad result. If only a tenth part of the suprarenal tissue is left, the animals live from two to nine weeks and then die from wasting. From this it follows that the suprarenal bodies exercise a marked influence on the general nutrition of the organism. If after the glands have been removed from an animal a graft of a suprarenal capsule from another animal of the same species is made, life is prolonged, and the symptoms modified, but a graft from an animal of a different species does not have this effect. Accessory suprarenal capsules may vitiate the effect of removal of the glands, and their presence explains the contradictory results obtained by some observers. Damage done during the operation plays no part in bringing about death in capsulated animals. The suprarenal bodies have a chemical action in the organism, and probably neutralize one or more toxic bodies of unknown nature. The author's observations do not support the view of Abelous and Langlois, that acapsulated animals are in a condition of curarisation, since he found that the motor nerves and their intramuscular endings in acapsulated frogs retained their electrical excitability and their action on muscles up to and even after death.

Messrs. O. C. Neumeister & Co., pharmacists of Sheboygan, have compiled the cases of diphtheria reported at the Health Office of Sheboygan giving the record for one year, ending October 1st, 1896, with percentage of deaths of those treated with and without antitoxin, as follows:

Total number of cases of diphtheria reported during the year,	111
Number of cases treated without antitoxin,	51
Of these died,	12
Percentage of mortality without antitoxin,	23.53
Total number of cases treated with antitoxin,	60
Of these died,	7
Percentage of mortality with antitoxin,	11.66

The above record gives the results of cases treated by the different physicians of Sheboygan in private practice, Gibier's antitoxin being used exclusively. These statistics should certainly be convincing to those physicians who question the virtues of antitoxin.

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Cancer.

In reviewing the present state of our knowledge as to the etiology of cancer, Dr. Roucali lays down the following propositions: That in malignant growths of men and animals certain extraneous bodies may be found within the protoplasm of the cell. These bodies are identical morphologically with the so-called coccidia found by various authors in the cells of epitheliomata and sarcomata. They are blascomycetes, and resist acids and alkalis just as these parasites do. They are found in malignant growths only and in no other pathological growth. They are generally seen at the growing edge of a new growth, not in the centre and only exceptionally in the cell nuclei. They react to special methods of staining, and may be obtained in pure cultures from the malignant neoplasms of men and animals. The lower mammalia (guineapigs, rabbits) are more susceptible to inoculation with these blastomycetes than the higher (dogs). Thus whilst certain blastomycetes in the lower classes give rise to generalised lesions, in the higher mammalia the lesions are localized. These lesions have essentially neo-productive and non-inflammatory characters. We can, however, resolve the question of the etiology of cancer only when with blastomycetes isolated from malignant tumors of animals of one species reproduces in animals of the same species the same malignant growths.

Peritonitis, Operative Interference in Typhoid Fever.

Dr. Dicalafoy's opinion bearing upon this subject is as follows:

Peritonitis due to perforation usually supervenes at the period of stasis or during recurrence of typhoid fever, and any part of the intestine involved in the typhoid process may be its seat. It is met with in mild as well as in severe cases, and the diagnosis would be a matter of great difficulty but for a constant and often solitary sign, namely, sudden fall of temperature. In three cases of intestinal perforation the temperature fell below 35° C. It would be a mistake to suppose that all such falls in temperature indicate perforation. In many cases the defervescence is as sudden as in pneumonia, or, again, such falls follow copious hæmor-

rhages. In the latter case, however, the temperature rises again rapidly, while in perforation it remains low or rises very gradually. Perforation peritonitis lasts from three days to a week, during which time deceptive remissions may occur. The end is almost invariably fatal. In rare cases protective adhesions form, and recovery ensues. In the peritonitis due to the propagation of the infectious process through the ulcerated but not perforated intestine there is a lesion of the vermiform appendix, which may ulcerate and be perforated at the level of its abundant lymphoid tissue. The symptoms are the same as those of other typhoid perforations. "Paratyphoid peritonitis" is due to the remnant of a typhoid lesion of the appendix, and is characterised by a rise of temperature. Surgical treatment of this condition should be the same as in ordinary appendicitis. The problem of when to operate in a perforative peritonitis is a much more serious one, owing to the difficulty of determining that perforation has taken place, the necessity of speedy and opportune intervention, and the fact that there may be several coincident perforations. Operation, however, holds out some hope of success, and in spite of the ulceration suture may bring about healing.

Saliva a Disinfectant.

It is already known that secretions of the mucous membranes, especially saliva, possess antiseptic properties under certain circumstances, which explains the reason why the germs which enter daily and hourly through the mouth do not reach a harmful development; but Edinger has now found the active material in potassium rhodanate, which is present in saliva. Potassium rhodanate is a compound of sulphur, cyanogen, and potassium, and is, in large quantities, narcotically poisonous to warm-blooded animals; it is, like other rhodanates, fatal to bacilli. A quinolin rhodanate, lately produced, is said, in a solution of three parts to the thousand, to kill the cholera bacillus in a minute, and, in a solution of three times this strength, to kill the diphtheria bacillus in the same time. It was found by further researches that this rhodanate has the effect of carbolic acid and of corrosive sublimate, and at the same time is harmless to man.

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Changes in the Myocardium in Diphtheria.

According to Scagliosi the poison of diphtheria produces effects in the following order. In the first place it acts on the walls of the bloodvessels, especially the small arteries, and produces in them histological changes; secondly, it diffuses into the tissues, being aided in this by the alterations in the vessel walls, and causes certain degenerative changes in the muscle fibres; and lastly, around the altered vessels and muscle fibres there may occur small-cell infiltration, but this is never a primary phenomenon.

As regards the vascular changes, the intima, especially in the small arteries, may be swollen, the endothelium bulging into the lumen, and cells may show some loss of staining power. The middle coat of the small arteries at places undergoes hyaline change in its whole thickness, and in those of larger size the muscle fibres appear somewhat homogeneous, and their nuclei stain poorly. In the adventitia there may be some leucocytic infiltration. These changes occur at a very early stage of the disease, being present before there is degeneration in the muscle fibres of the heart wall. There is usually marked capillary congestion, and there may be small extravasations of blood. In the muscle fibres the earliest changes are a loss of the normal striation and a granular degeneration of their substance. This granular change effects groups of fibres irregularly in patches, and may also affect portions of individual fibres, the degenerated portions becoming much swollen. Many fibres in which this change has far advanced show a further stage—namely, the fusing together of the granular matter into a hyaline and highly refractile substance. In this way collections of homogeneous wax-like fragments are formed in the muscle, which afterwards may become separated and lie free in the tissues. Fibres which show this hyaline change have a wavy or winding course, and in some parts are much swollen, in others narrowed. From some of the fibres the hyaline or granular material disappears, and the diminished fibres are seen lying closely applied to one another in parallel rows. Around such fibres, as well as around those in

which the hyaline change is progressing, and also around some of the altered vessels, patches of leucocytic infiltration occur; but this change is never found unassociated with changes in the elements mentioned. The changes in the muscle occur first in the columnæ corneæ and underneath the endocardium, and are only well marked when the disease has lasted some time. In the later stages fatty degeneration also occurs.

Scagliosi therefore concludes that the primary action of the diphtheria toxine is to produce a parenchymatous inflammation (though we think it would be better not to apply the term "inflammation" to such conditions), and that its effects correspond in their mode of production with those described by himself and Pernice in the case of the central nervous system in diphtheria—first, alterations in the vessel walls, and then degenerative change in the nerve cells lying near.

Salt and Bright's Disease.

It has long been suspected that salt used in excess might be a cause of nephritis. The kidneys are taxed to eliminate a portion of it, and the strain, if kept up a long time, is more than they are able to bear. Some studies recently made seem to confirm this opinion. That is to say, too large an amount of common salt in our food acts as an irritant, and be one of the factors in causing inflammation of the kidneys. Those who take this condiment in large quantities should bear this in mind and take less of it. The salt habit is so strong in many persons that they can enjoy no food not highly seasoned with it. This is certainly a hygienic error. With a well chosen diet, no great amount of salt is required, and the natural flavour of many things is lost when much of it is added. Especially is little salt required when a large amount of flesh is consumed. Carnivorous animals do not require salt at all. There are races of men who live mainly on animal food, and though salt abounds around them they do not use it. It is the vegetable-eating animals and races of men that seem to require salt as a part of their diet. Bearing this in mind, we ought to be able to compose our food and condiments more scientifically.

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Alcohol in Pneumonia.

The late Prof. A. L. Loomis, who was an undoubted authority on diseases of the chest, in an address delivered about a year before his death, said:—"There is no proof that we have reduced the death rate of pneumonia one iota in the last forty years," and we think the correctness of this statement cannot be questioned. We have gone from the reducing medication and blood-letting, which had been the vogue just prior to that time, to the opposite extreme without making any apparent gain.

Indeed, considering the number of new appliances for the comfort of the patient, the preparation and administration of medicine, the advance in our knowledge of the etiology and nature of the disease, we have distinctly retrograded. Notwithstanding our oft-repeated and unfortunate experience, when our patient is going from bad to worse, we call in wise counsel, and are asked how much brandy or whiskey we are giving. When we reply a drachm an hour we are told to double the quantity, "to see if this will bridge him over until the (specific fever) subsides and the lung clears up." "But doctor, do you think this will cure him?" "Oh no, but that is all we can do." Is it not time to call a halt in this continuous stimulation, especially as it has been proven time and again that when we dose in this manner we lose the fight just the same? Why load the patient's brain and stomach, and put him to the expense of buying alcohol? If he is to die let him die without over-dosing.

It has been repeatedly proven that alcohol is neither a food nor a promoter of energy. It stimulates the functional activity and calls into play our reserve vitality, and that only for a short time. Just as a horse harnessed to a load, the drawing of which requires all his strength, when he comes to a hill he is unable to proceed, till goaded to madness by the lash he calls upon his reserve vitality. Let this be too frequently repeated, however, and the time comes when he has no more reserve power; when he "quits," and the lash falls uselessly on his poor sides. So our heart goaded by alcohol performs great work, but only for a short time. The greater the stimulation and exaggeration of function, the greater the

reaction and weakness, and there comes a time when the heart stops work. *There may be a time*—a combination of circumstances, when resolution is begun and the sudden obstruction of a bronchial tube, or some other mishap, puts a sudden momentary burden on the heart—that one or two ounces of brandy may save a life, but rest assured that the giving it hour after hour and day after day is not only no benefit, but is positively pernicious. If, after keeping a patient well under alcohol six or eight hours with no benefit, we are disposed to think it contra-indicated, it should be discontinued, or at most given so sparingly that no reaction will follow.

Mercury in Tubercular Diseases.

A French physician has recently published some valuable observations upon the use of mercury in the treatment of patients suffering from tubercular diseases. He chiefly used the drug in the form of hypodermic injections of corrosive sublimate, and carried out the treatment for many months with regularity. The results which he describes are very remarkable, because they consisted, for example, of the gradual drying up and disappearance of tubercular glands, and of chronic diseases of the nose and eyes; and in at least one instance, in which a patient with a tubercular family history was evidently suffering from incipient consumption, this method of treatment was followed by speedy improvement, and finally by apparent cure. The treatment will doubtless receive a very careful and extensive trial in this country, although it is at first sight difficult to understand or explain its *rationale*. Mercury is known to be a resolvent of certain forms of new growth, notably those due to a specific cause; but it is, at the same time, so depressing when given in larger or long continued doses, that it has probably never before been widely employed in the treatment of tubercular diseases. It is a curious illustration of the influence of fashion in therapeutics that after being terribly abused, and partly falling into discredit for half a century, mercury is now being largely used again, and with the greatest benefit, in many widely different diseases.

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The Joint Affections of Scarlet Fever.

Marsden has lately given this subject special study. Nearly all the specific fevers, he says, including pneumonia, may be followed by some form of inflammation of a joint structure, and yet we have very little accurate knowledge as to its actual origin. The joint affections of scarlet fever afford a good field for investigation because there is every reason to believe that several varieties occur, each variety probably depending on a different *materies morbi*. Some interesting facts are brought out by Marsden, drawn from a large series of cases. He adopts the following classification:—(1) Scarlatinal synovitis; (2) septic arthritis, acute and chronic; (3) acute and sub-acute rheumatic synovitis; (4) tubercular arthritis.

The first form of synovitis he marks off distinctly as being at any rate not of a rheumatic origin, and he adduces many facts to support the separation. This, which is the most common form of joint affection, occurs in about 7 per cent. of all cases of scarlet fever—at any rate, in hospital practice. It is very constant in the date of its appearance, the great majority of instances occurring from the fourth to the tenth day of the disease—in other words, during the defervescence of the fever or shortly afterwards. Its site also is very constant, the wrists being affected in seventy-two out of one hundred cases. The common localized swelling is on the back of the hand, due apparently to affection of the sheaths of the extensor tendons, and sometimes also of the synovial membranes of the joints.

It seems to have no connection either with the severity of the throat affection or with the occurrence of desquamation; and from the regularity of its occurrence at a definite early point in the illness, and from the absence of any evidence pointing to connection with rheumatism, and from the common situation of the swelling, it seems probable that it is actually a part of the disease, due directly to the scarlatinal poison.

As regards the other forms of joint affections, the evidence adduced assigns to them a non-scarlatinal origin. The septic form, which only occurs in about 0.75 of all cases, is clearly connected with the severity of the throat affection,

and it is probably due to a mixed infection. It is attended with a high rate of mortality. The form of synovitis, which may, with some probability, be looked upon as rheumatic, is still less common, and it does not occur until an advanced stage of convalescence is reached. The tuberculous form usually appears only after the discharge of the patient, and the preceding scarlet fever probably acts as a predisposing influence.

A much rarer phenomenon in scarlet fever is the occurrence of orchitis. Some few cases have been placed on record where this complication has occurred in the second or third week of the disease, and they are probably to be explained on the hypothesis of a mixed infection arising from the throat. A curious instance is detailed by Faugere in which a man developed an acute orchitis some thirty-six hours before the onset of scarlet fever without any possibility of attributing it to any of the ordinary causes. It quickly subsided, but reappeared again with the commencement of desquamation, and lasted for several days.

S. L. Reed, M. D., Highland Park, Ky., Oct. 28, 1896, writes: Have only time at present to copy notes in reference to case in which I used Bromidia. Was called suddenly early on morning June 10th to see Mrs. McG. Patient had been under treatment of Dr. R. who had been called but failed to answer. Found patient suffering with Acute Mania very violent and destructive. On questioning family found patient had delivered herself four days previous of a three months Foetus. Since that time patient had been receiving enormous doses of morphine with no apparent result. As patient was beyond control improvised a straight jacket of her husbands sweater and bicycle belt. Ordered half ounce Bromidia (Battle & Co.) every half hour until quiet. In two hours patient was sleeping. Patient continued to receive Bromidia whenever indicated, along with other treatment, and in a few weeks was apparently well although Dr. R. still has her under observation. This will show the superiority of Bromidia over morphine especially in cases with head symptoms.

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A Few Rules that Should be Observed in all Cases of Typhoid Fever.

"Dishes and eating utensils should be kept exclusively for the patient, and after use should be boiled for fifteen minutes in water containing sal soda, then rinsed in clean water. All food brought into the sick-room and not consumed by the patient should be burned."

"The excretions should be received in a vessel containing a small portion of milk of lime—composed of freshly slacked lime and diluted with four times its bulk of water—to which a liberal addition should be made afterwards, and the whole intimately mixed by stirring with a stick. It should stand a-half hour, or more before being buried. Milk of lime is the most valuable agent for the disinfection of typhoid and cholera stools we have. The practice of suspending towels and sheets about the sick room, saturated with carbolic acid and other odorous solutions, is not to be commended. It has little other effect than to cause frequently, nausea and headache in the patient and attendant."

"The body and bed linen should be changed daily. Never shake them. As soon as removed immerse them in a disinfecting solution composed of carbolic acid and water (one part to forty), or in a bichloride of mercury solution (one to one thousand). Let them soak four hours or longer, then boil them for half

an hour and wash with soap. The rubber sheet should be thoroughly spronged with the carbolic solution, then dried and aired in the sun for several hours.

At the November meeting of the German Society for Public Hygiene Dr. Vogel read a paper advocating a process by which faecal matter is converted into "poudrette." It consists in the desiccation of the excremental matter, with an admixture of sulphuric acid. The sulphuric acid is required for binding the nitrogen and for eliminating the carbonic acid-gas, etc. Dr. Vogel asserted that this process ensures the destruction of all noxious germs, whilst preserving the nitrogen; and that it has now been in practice for about ten years in one of the Manchester suburbs with excellent results. In the course of his paper Dr. Vogel made the astonishing statement that in Germany 95 per cent. of the townships, with more than 5,000 inhabitants, are undrained, and make use either of cesspools or of the barrel system.

It appears that the study of ear diseases is a branch much neglected by the ordinary medical student in Germany. The Germany University teachers of this discipline have in a body signed a petition to the Ministry, praying that more attention may be given to it in the medical curriculum examinations.

Two sad cases of sudden death occurred lately in the Austrian scientific world. Professor Behloradzky, who held the Chair of Forensic Medicine in the Bohemian University of Prague, was found dead in his laboratory with a bottle of strychnine in front of him. The mystery of the case has not yet been cleared up. *Privatdozent* Dr. Kerry, Director of the Bacteriological Institute of the agricultural Ministry, also died in his laboratory while working with the microscope, at the early age of 34. His death, though sudden, was not wholly unexpected, as he had for years been suffering from heart disease. He was a son-in-law of the Nestor of the Vienna medical world, Professor Dittel.

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A Text-Book of Materia Medica, Therapeutics and Pharmacology, by George Frank Butler, Ph. G., M. D. Philadelphia: W. B. Saunders, 925 Walnut Street, 1896.....	018	A Manual of Obstetrics, by W. A. Newman Dorland, A. M., M. D. Philadelphia: W. B. Saunders, 925 Walnut Street. 1896.....	208
A System of Medicine, Edited by Thomas Clifford Allbutt, M. A., M. D. New York: MacMillan & Co.....	207	Bijou's Courtships. A Study in Pink. By Katherine Berry di Zerega F. Tennyson Neely, 1896, New York.....	749
A Manual of Clinical Diagnosis by Microscopical and Chemical Methods, by Charles E. Simon, M. D. Lea Brothers & Co., Philadelphia and New York, 1896.....	467	Domestic Sanitary Drainage and Plumbing, by William R. Maguire, of Dublin. D. Van Norstrand Co., New York.....	620
An Illustrated Flora of the Northern States, Canada and the British Possessions, by Nathaniel Lord Britton, Ph. D., and Hon. Addison Brown. New York: Charles Scribner's Sons, 1896.....	749	Diagnostic Urinalysis, by M. D. Hoge, Jr., M. D., Richmond, Va., Geo. M. West, Publisher 1896.....	468
A Treatise on Surgery, by American authors. Lea Brothers & Co., 1896.....	448	Essentials of Physical Diagnosis of the Thorax. By Arthur M. Crowin, A. M., M. D. Philadelphia. W. B. Saunders, 925 Walnut street. 1896.....	749
An American Text-Book of Physiology, by Henry P. Bowditch, M. D., and others. Published by W. B. Saunders, 925 Walnut Street, Philadelphia.....	747	Hemorrhoids and Other Non-Malignant Rectal Diseases. By W. P. Agnew, M. D. Third Edition, Pacific Press Publishing Co., San Francisco, Cal. 1896.....	209
A Treatise on Obstetrics, by Edward P. Davis, A. M., M. D. Lea Brothers & Co., Philadelphia and New York, 1896.....	329	Lucius Q. C. Lamar, His Life, Times and Speeches, by Edward Mayes, Nashville, Tenn. Publishing House of the Methodist Episcopal Church, South. Barbee & Smith Agents. 1896.....	211
A Treatise on Surgery for Students and Practitioners by American Authors. Edited by Roswell Park, M. D. Lea Brothers & Co., Publishers, Philadelphia and New York.....	210	Lazy Tours in Spain and Elsewhere, by Louise Chandler Moulton, Boston. Robert Brothers. 1896.....	750
A Manual of Materia and Pharmacology, by David M. R. Culbreth, Ph. G. M. D. Lea Brothers & Co., Philadelphia and New York. 1896.....	467	Life and Letters of Oliver Wendell Holmes. By John T. Morse, Jr. Two vols., 12mo. pp. 358-335. Boston. Houghton, Mifflin & Co. \$4.....	55
A Daily Thought for a Daily Endeavor, by Eleanor Armerman Sutphen and Eliza Polhemus Sutphen, New York. The Baker and Taylor Co., 5 and 7 East Sixteenth St. 1896.....	620	Mother Baby and Nursery. A Manual for Mothers, by Genevieve Tucker, M. D., Boston. Roberts Brothers, 1896.....	619
A Text Book of Special Pathological Anatomy, by Ernest Ziegler, New York. The MacMillan Company. 1896.....	619	Minor Surgery and Bandaging, by Henry R. Wharton, M. D. Philadelphia, Lea Brothers & Co.....	327
A Practical Treatise on Materia Medica and Therapeutics, by Roberts Bartholow, A. M., M. D., LL.D. New York. D. Appleton and Company. 1896.....	619		

Manual of Midwifery, by W. E. Fothergill, M. A., B. Sc., M. B. C. M. New York. The MacMillan Company, 1896.....	209	The Primary Factors of Organic Evolutions, by E. D. Cope, Ph.D. Chicago: The Open Court Publishing Co. 1896.....	56
Over the Hookah, the Tales of a Talkative Doctor, by G. Frank Lydston, M. D. The Fred Klein Publishing Co., Chicago.....	749	Transactions of the State Medical Society of Wisconsin for the Year 1896. Constitution and By-Laws.....	621
Practical Diagnosis, by Hobart Amory Hare, M. D., B. Sc. Lea Brothers & Co., Publishers, Philadelphia and New York.....	211	The Multum in Parvo and Reference Dose Book, by C. Henri Leonard, M. A., M. D. Detroit. 1896: The Illustrated Medical Journal Co., Publishers.....	211
Ptomain, Leucomains, Toxins and Antitoxins, by Victor C. Vaughan, Ph. D., M. D. Philadelphia, Lea Brothers & Co., 1896.....	327	Transactions of the Iowa State Medical Society. Vol. XIV. Forty-fifth Annual Session 1896.....	651
Practical Notes on Urinary Analysis, by William B. Canfield, A. M., M. D. Geo. S. Davis, Detroit, Mich.....	620	The Finding of Lot's Wife, by Alfred Clark. Fred. A. Stokes Company, Publishers.....	750
Practical Points in Nursing, by Emily A. M. Stoney. Philadelphia, W. B. Saunders, 925 Walnut Street.....	208	The Vanished Emperor. B/ Percy Andrae. Chicago and New York. Rand, McNally & Co.....	750
The Practice of Medicine, by Horatio C. Wood, A. M., M. D., LL D., and Reginold H. Fitz, A. M., M. D. Philadelphia: J. B. Lippincott Company. 1896.....	617	The Non-Heridity of Inebriety. By Lester E. Keely, M. D., LL D Chicago. Scott, Foresman & Company. 1896.....	749
Transactions of the Association of American Physicians.....	468	The Physician's Visiting List for 1897, Price \$1.00. P. Blakiston, Son & Co., Philadelphia.....	749
Transactions of the Medical Society of the State of New York for the Year 1896. Published by the Society.....	212	The Story of Human Progress. A Brief History of Civilization, by Frank W. Blackmar, Ph. D. Published by F. W. Blackmar, 1896.....	749
Transactions of the State Medical Society of Wisconsin for the Year 1895. Charles S. Sheldon, M. D., Secretary. Madison, Wisconsin: Tracy, Gibbs & Co., Printers and Stereotypers. 1895.....	212	Typhoid Fever and its Abortive Treatment, by John Eliot Woodbridge, M. D. The Cleveland Medical Publishing Company..	55
		Water-Supply, by William P. Mason. New York, John Wiley & Sons, 1896.....	468

Treatment of Eclampsia.

Halbertsma in the British Medical Journal, attributes the differences of opinion in respect of the treatment of eclampsia to comparison of the number instead of the nature of cases. The prognosis varies greatly with the time at which the symptoms come on; remedies which are effectual in *postpartum* eclampsia are useless when the manifestations appear towards the end of pregnancy. It is with the latter class of cases that the author particularly deals, and of them he analyses 48—30 occurring in the latter period of gestation, the other 18 at the beginning of labour. Of these 48 cases the prognosis in 26 was extremely grave; 10 of them were actively treated, the remaining 16 not. Of the former recovery resulted in 8 instances, of the latter in only one. This corresponds to the results recorded by Zweifel, who, out of 22 actively treated severe cases lost but two. Halbertsma hence considers that such cases occurring in the last three or four months of pregnancy or at the beginning of labour indicate more radical treatment than is commonly employed. Active interference is required in all cases where the pregnancy

has lasted eight months, and in all others in which two doses of 1-30 gr. of morphine have proved ineffectual. In such circumstances the prognosis is much worse if the patient is left alone than if Cæsarean section is performed; by the procedure the author reckons usually to save both mother and child. Döderlein has published 19 cases so treated; in 11 success was complete, in the other 8 the mother died. In 2 of the fatal cases the eclampsia was complicated by apoplexy and miliary tuberculosis respectively, while 3 were in *extremis* when operated upon; the number of instances in which the operation failed to avert a fatal issue is thus reduced to 3. Since Döderlein's paper, out of 3 cases treated by Halbertsma's method, 2 have recovered. Dührsen prefers to operate by deep decisions into the cervix, but this results, according to Zweifel's statistics, in an infantile mortality of 61 per cent., so that the author prefers Cæsarean section whenever the cervix is not dilated. Whatever view may be taken of the pathogeny of eclampsia there is no doubt of the causal relation of pregnancy, and the first indication in a dangerous case is therefore to terminate this condition.

